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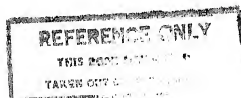


Language Performance in Schools

Secondary Survey Report No 2

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A report on the 1980 secondary survey from the Language Monitoring Team at the National Foundation for Educational Research in England and Wales to the Department of Education and Science, the Welsh Office and the Department of Education for Northern Ireland.



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A more detailed analysis of data collected in Wales is available as a supplement to this report, free of charge, from the Welsh Office Education Department, Cathays Park, Cardiff CF1 3NQ.

A technical supplement giving details of the procedures used in the analyses of data for reading and writing is also available, free of charge, from the Department of Education and Science, Elizabeth House, York Road, London SE1 7PH.

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Summary of report

1. This report is the second in a series which aims to present a national picture of the language performance of 15-year old pupils in England, Wales and Northern Ireland. It covers the survey carried out in November 1980 by the National Foundation for Educational Research on behalf of the Assessment of Performance Unit. As with all APU surveys, the performances of individual pupils, schools and local education authorities are not identified and there is, deliberately at this stage, no evaluation of the quality of the overall performance revealed.

Survey design

2. APU language surveys involve a representative sample of the age group. In 1980, some 10,700 pupils in 349 schools participated; approximately 7,400 in England, 1,800 in Wales and 1,500 in Northern Ireland. Of these, around 6,700 took tests in reading, 3,200 tests in writing and 800 took tests linking reading and writing. A sub-sample of approximately 1,100 pupils who took the reading tests also completed a questionnaire about their reading preferences and interests.

Reading (Chapter 2)

3. APU reading tests are intended to reflect the range of materials which pupils are likely to encounter in and outside school. Eight illustrated booklets were used for this survey, all varying in content, structure, style and purpose.

4. The text of one booklet (a short story) is inserted at the back of the report and examples of questions and pupils' responses are provided at the end of Chapter 2. The report examines a selection of their responses to questions on the short story and on a second booklet containing expository material about diamonds and their production, and reference is also made to a note-making exercise included in the first secondary survey (1979).

5. In answering questions on the short story, most pupils were able to follow the sequence of events and understand the attitudes of the characters involved. The majority presented relatively complex interpretations in a reasoned and coherent form. Comparison with responses obtained from the 1980 primary survey revealed that, while the same patterns of response were apparent at each age level, 15-year olds were less likely to explain the story in terms of the personal emotions of the characters, and more able to relate it to their own experience.

6. Pupils were required, in one exercise, to read an informational passage about diamonds and to record particular evidence about a number of famous stones. Pupils who performed well specified all the available evidence and imposed a clear organisational structure on their notes. Low performers generally failed to relate the given evidence to specific diamonds, and tended to reproduce irrelevant facts.

Other pupils took a second exercise, where the same passage was accompanied by a set framework within which they were asked to record information about the country of origin, present location and colour of the diamonds. The majority were able to locate facts which were explicitly presented in the text.

7. The results of these exercises revealed that pupils' main difficulties did not lie in their inability to read and understand given passages, but in the fact that they were asked to select and reconstruct information in a clearly structured and succinct form.

Attitudes to reading (Chapter 3)

8. A sub-sample who took part in the reading survey was asked to provide information about reading preferences and interests. Responses are reported separately for boys and girls and are compared with responses from 15 year olds tested in 1979.

9. In the 1979 and 1980 secondary surveys, more girls than boys expressed an enjoyment of reading, while more boys than girls expressed reluctant or negative attitudes. Four out of five pupils in the 1980 survey enjoyed independent reading, but this proportion dropped when periods of sustained reading were involved. One in ten preferred reading aloud to silent, independent reading.

10. Half the sample preferred watching television to reading, while slightly fewer pupils read comics and magazines at home more than books. More boys than girls preferred television, but no difference was found in their preferences for comics and magazines. Three-quarters of the sample enjoyed fiction; half, non-fiction; and a third, poetry. More boys than girls sought to increase their knowledge of practical interests/activities, while more girls were interested in developing their understanding of human behaviour, ideas and opinions.

11. Initial findings on the attitude scales under development show that pupils who were reluctant to read extensively generally performed less well on the reading tests, while those who enjoyed independent, extended reading tended to do better.

Writing (Chapter 4)

12. Ten booklets were used in the assessment of writing. Each contained a short writing task common to all booklets; one of ten different, longer writing tasks; a text-based exercise; and several short questions about pupils' attitudes to writing. The marking schemes employed were the same as for the 1979 secondary survey and are described in paragraphs 4.14 to 4.40.

13. The results appear to parallel those of the 1979 secondary survey. Approximately 30 per cent of pupils produced writing which was apt in content, entirely coherent in organisation and without orthographical and grammatical errors. 15 per cent achieved similar results in terms of the appropriateness and style of writing. Analysis of the weakest writing revealed that scripts were usually found inadequate in terms of appropriateness and style; approximately 9 per cent of pupils employed

a written style which was barely responsive to the need for what was written to be interpreted by a reader.

14. Pupils were asked to respond to three open-ended questions about their preferences for writing tasks and about what they considered 'most important' in writing.

15. Significantly different patterns of response were noted when boys' and girls' preferences were compared: more girls preferred imaginative writing; more boys preferred writing which had a factual, expository bias. Although negative attitudes to writing were not explicitly canvassed, boys volunteered these significantly more often than girls. These findings echo those noted in 1979, and compare directly with the results of the inquiry into attitudes to reading.

16. Questioned about the 'important' qualities of writing pupils appeared to draw more upon public rather than private values. One in three pupils thought that the correct management of surface features of the written language was important; while one in ten considered that the expressive/communicative functions of writing, or the writer's personal satisfaction were paramount.

Background variables: reading (Chapter 5)

17. Chapters 5 and 6 briefly outline pupils' reading and writing performance across the tests and also discuss the pattern of performance against ten background variables relating to the pupils, the schools and geographical location. The variables are not all independent and may relate to others about which data are not at present available. Any apparent relationship between variables and performance should be interpreted with care.

18. In both 1979 and 1980 girls obtained a higher mean reading score than boys; in the second survey the difference was statistically significant. Native speakers of English performed significantly better than second language speakers in both years, although this did not apply to Welsh-speaking pupils. In the 1980 survey, evidence was collected about the relative language performance of pupils taking different combinations of science subjects. Pupils taking physics, chemistry and biology achieved the highest mean scores, followed by pupils studying combinations of two of these subjects. The lowest mean scores were obtained by pupils studying general science and any science course other than those specified.

19. In both surveys, the mean reading score of pupils in England and Wales in single sex schools was significantly higher than that of pupils of the same sex in co-educational schools and pupils' mean scores tended to decrease as the proportion entitled to free school meals increased. The mean reading score of pupils in metropolitan areas in England who attended schools with the fewest pupils per teacher was significantly lower than that of pupils in other pupil/teacher ratio categories in both 1979 and 1980. Overall, there were no significant differences between the scores of pupils in the different sizes of age group categories, but when this variable was associated with others such as pupil/teacher ratio or sex differences, then some significant differences appeared.

20. In both surveys, pupils in non-metropolitan areas achieved significantly higher mean reading scores than those in metropolitan areas. The mean score of pupils in the South of England was significantly higher than that of pupils in the other four regions in the 1980 survey; in 1979, no significant differences were found between the mean scores of pupils in the three English regions.

Background variables writing: (Chapter 6)

21. As in 1979, girls performed significantly better than boys in writing. In 1980, there was no significant difference in writing performance between the mean scores of first and second language speakers of English. Pupils taking physics, chemistry and biology obtained higher scores than those in other curriculum groups. The lowest scores were obtained by pupils taking human biology or a science course other than those specified.

22. In both surveys, the mean scores of pupils in England and Wales in single sex schools were significantly higher than those of pupils of the same sex in co-educational schools and mean writing scores tended to decrease as the proportion of pupils who were entitled to free school meals increased. Overall, there were no significant differences between the mean scores of pupils in the different pupil/teacher ratio categories, nor between those of pupils in the various size of age group categories.

23. As in 1979, there was no significant difference between the scores of pupils in metropolitan and non-metropolitan areas nor between those of pupils in the different regions.

Language monitoring at secondary level: the first two years (Chapter 7)

24. This chapter briefly reviews the reading tests, writing tasks and attitudes' instruments employed in the first two years of monitoring, and also outlines the similarities between the findings of the 1979 and 1980 secondary surveys in relation to the background variables employed. No direct comparison is drawn in the report between the overall performance of pupils in reading and writing over the first two secondary surveys, but data obtained from successive surveys will be analysed retrospectively to investigate the extent of variations in performance over a five year period.

1. The secondary survey: a review

Introduction

1.1 This report presents the results of a survey of the language performance of 15 year old pupils in schools in England, Wales and Northern Ireland. The survey was the second of a series of five annual surveys involving pupils of this age group to be conducted by the National Foundation for Educational Research (NFER) on behalf of the Assessment of Performance Unit (APU) at the Department of Education and Science (DES). It was preceded in May, 1980, by a survey of the language performance of 11 year old pupils, which was also the second in a series of five annual surveys. This secondary survey was carried out in November 1980.

1.2 The APU was set up in 1975 with the aim of providing information about the general levels of performance of children and young people at school and evidence about how these change over the years. The APU monitoring programme in general is intended to reflect the breadth of the curriculum in schools. The assessment model adopted takes account of different lines of educational development, each of which features in a number of subject areas and does not depend upon the content of particular schemes of work.

1.3 The team benefits from the advice of the Language Steering Group convened by the APU, which is made up of teachers, advisers, teacher trainers, researchers and HMIs, and from that of the NFER and APU Committees referred to in Appendix 5.

1.4 The initial task of the Steering Group was to propose guidelines for the work of the monitoring team. In drawing up its initial set of proposals, the Group took account of the recommendations of the report of the Bullock Committee in its discussion about the nature and scope of a programme to monitor performance in language.¹ The Bullock Committee had pointed to the need for new methods of assessment which would be 'capable of showing whether the reading and writing abilities of children are adequate to the demands made upon them in school and likely to face them in adult life'. They had proposed that the instruments to be used should be appropriate for use with the entire ability range and that they should include samples of performance considered to be important and representative of pupils' attainment.

1.5 While the Bullock Committee had discerned the general need for new ways of assessing pupils' language performance which could be used in place of the sentence-completion tests employed in previous national surveys of reading, it was necessary for the Steering Group to suggest specific examples of tasks that pupils aged eleven or fifteen might appropriately be asked to undertake. The proposals made by the Steering Group for the assessment of aspects of reading and writing were published in 1978 in the pamphlet *Language performance*². These have been discussed in detail in earlier reports and it is not therefore necessary to review them in this report. It is however relevant to make the point that, in considering the form that tests of performance in reading and writing might take, the Group adopted what might be

¹ Department of Education and Science, *A language for life*, HMSO, 1975.

² Assessment of Performance Unit, *Language performance*, HMSO, 1978.

termed a 'functional' perspective. The guiding questions posed were: "what do pupils read and why?" and "what do they write and why?". This approach led to the specification of a range of tasks in both reading and writing which were similar to activities pupils might encounter in different contexts.

1.6 The preliminary proposals for language assessment also drew attention to the fact that it was important to obtain, as part of the monitoring programme, information about the voluntary reading undertaken by pupils and their attitudes to reading in general. The desire of teachers to ensure that pupils see reading as a source of enjoyment and their concern to ensure not only that pupils can read, but that they want to read were acknowledged. The investigation of pupils' attitudes to reading has therefore been a matter for continuing enquiry by the monitoring team. The scope of the enquiry has recently been broadened to include attitudes to writing.

1.7 The monitoring team's initial brief included the stipulation that they should investigate the feasibility of assessing pupils' performance in activities involving listening and speaking. The preparatory work has been completed and the surveys carried out from 1982 include a series of measures designed to assess performance in listening and speaking.

The secondary survey 1980

1.8 In the course of the 1980 survey, representative samples of pupils from England, Wales and Northern Ireland were asked to complete a variety of different reading and writing tasks and a sub-sample was asked to respond to a number of questions about their enjoyment of and preferences for different activities involving reading or writing.

1.9 The materials developed to assess reading took the form of eight booklets. Each booklet contained readings relating to a particular theme or story. Extracts from two of the booklets used are given in Chapter 2, where pupils' reading performance is discussed with reference to specific questions. 6,738 pupils took part in the reading survey. Each pupil completed one reading booklet and the different booklets were distributed at random throughout the sample.

1.10 Approximately 1,100 of the pupils who took part in the reading survey were asked to answer a number of questions about their attitudes to reading. They were asked to say whether they agreed or disagreed with a number of statements referring to reading skills and activities and also asked to answer a number of open-ended questions. Chapter 3 contains an interpretation of their responses to the questions asked.

1.11 Pupils who participated in the survey of writing took one of ten sets of tasks which were assembled in a series of ten booklets. In completing a writing booklet, pupils were asked to write one longer and one shorter essay and to carry out one of a number of more structured exercises.

1.12 In any one school, each pupil involved in the writing survey was asked to complete an identical writing booklet. This procedure, which differed from that

adopted in the reading survey, was intended to enable the teacher supervising the pupils to advise them about the interpretation of instructions relating to writing tasks. The results of the writing survey are discussed and illustrated in Chapter 4.

1.13 3,164 pupils participated in the writing survey. An additional sub-sample of 818 pupils completed both a reading and a writing booklet to enable a link to be made between their performance in the different activities.

The sampling strategy

1.14 The surveys sponsored by the APU are designed to make available information about certain aspects of pupil performance at a national level. It is not the intention to produce information about the performance of individual children, individual schools or individual local education authority areas. The amount of information about pupils or schools available to the monitoring teams is therefore strictly limited. In all cases, the anonymity of those participating in the surveys is preserved.

1.15 The survey was designed to provide information about the performance of pupils whose sixteenth birthday fell between 1st September 1980 and 31st August 1981. Pupils in special schools or special units within schools were not, however, involved.

1.16 To ensure that schools of different types and sizes were represented, schools were selected with reference to a number of variables. These included the type of school, the size of the 15-plus age group in the school, and the location of schools in metropolitan and non-metropolitan counties. Schools were also designated as belonging to one of three regions in England (North, South and Midlands) or to Wales or Northern Ireland.

1.17 The amount of information that was available about pupils in school was, by design, limited. Information was obtained about the age and sex of pupils. Head-teachers were also asked to say whether or not pupils spoke English as a first language and, if not, whether they were able to read and write their first language. In reporting the results, the NFER was also asked to take account of other data available, such as information about the pupil/teacher ratio in the schools in the sample. In Chapters 5 and 6, the results of this survey are reported in terms of the variables for which information is available.

1.18 The Monitoring Services Unit at the NFER was responsible for contacting LEAs and schools in order to obtain the sample and also for the supervision and organisation of the administrative arrangements for testing.

1.19 The selection of the samples and the design of the survey are discussed in more detail in Appendix 1.

2. The assessment of reading

The assessment of reading

2.1 Previous reports have contained a commentary on the background to the development of the materials used to assess reading and it would be redundant to repeat similar information in this report.

2.2 Some reference to the background to assessment needs to be made, however, to indicate why the reading tests selected for detailed analysis in this report take the form they do.

2.3 A variety of tests is used in the reading surveys. In principle, the intention is to devise assessment instruments which, in content and form, reflect something of the range of reading materials that pupils are likely to encounter in and outside school.

2.4 The reading matter incorporated into the tests is derived from a number of sources. These include works of literature, works of reference and books containing expository information relevant to different areas of the school curriculum. The tests also draw on materials that pupils are likely to encounter outside school, such as catalogues or travel brochures.

2.5 Some of the reading tests take the form of short booklets containing readings relating to a single theme. In several instances, they have the layout of a book, containing a page of contents and an index, section headings and other cues which the pupils are expected to make use of in responding to the questions asked. By design, the majority of such booklets contain material that is primarily expository in function.

2.6 A further set of booklets contains or comprises short stories. Examples of autobiographical narrative are also being introduced and it is intended to extend the range of literature, including poetry, which pupils are asked to read and interpret.

2.7 Some tests incorporate reading matter which has a functional rather than a thematic coherence, such as the booklet structured in the form of a travel brochure which was commented on in the report on the first secondary survey.¹

2.8 While much of the material in the reading tests is presented in the form of paragraphs within a sequence of related passages, a number of the booklets contain materials in other forms, such as maps, tables, charts and diagrams.

2.9 The range of questions pupils are asked varies according to the type of material being read and the purpose or purposes for which the pupil is reading. In devising questions, the guiding principle was that they should be similar to those that an experienced teacher would be likely to ask pupils, taking account of the content, form and function of the reading matter.

2.10 Because of the number of booklets employed in each survey and the need to make use of some of the tests in successive surveys, only a proportion of the test materials is released in each report. In the 1980 survey, eight different reading book-

¹ *Language performance in schools. Secondary survey report No. 1*, HMSO, 1981.

lets were employed. Pupils' responses to one of these will be commented on in detail and reference will be made to questions in two other booklets later in the report.

2.11 In addition to a reading booklet, each pupil completed a short common cloze test. Their performance on this common reading test was taken account of in linking pupils' results across the tests. Information about pupils' performance on the cloze test used to link the reading booklets will be given in the report of the fifth year of monitoring.

2.12 As was implied earlier, the intention is that the series of reports over the five year period will contain commentary on pupils' responses to reading matter which reflects a range of expository and literary materials encountered in school and documents likely to be encountered outside school. The report on the 1979 survey focussed attention on pupils' performance in interpreting a work of literature and in making use of a brochure which gave information about the facilities available in a holiday resort.

2.13 The short story released in the 1979 report was one whose interest derived primarily from the characteristics of the plot rather than other aspects of the narrative. In this respect, it differed from the story commented on in this report, in which the motivations for the actions of the central characters provide the primary focus of narrative interest. The second set of reading materials released and commented on in this report is adapted from expository texts providing information about the production and manufacture of diamonds.

2.14 The questions asked about the reading materials released allow for a variety of responses, particularly with regard to the interpretation of the short story. In the case of each question, note is taken of the proportion of pupils who provided an appropriate answer or response and this is reflected in the *facility value* assigned to the question (see below). However, the analysis of pupils' responses also focusses on the nature of the incorrect or inappropriate answers, as these frequently provide evidence about difficulties encountered by pupils in interpreting what they read.

2.15 In the following discussion of pupils' responses the facility value of different questions is given in terms of the proportion of pupils who gave an answer that was judged by the assessors to be appropriate in the context, expressed as a percentage of the number who attempted the specific booklet containing the question. Other relevant statistical information is given where this is judged to be appropriate. Information is also given about the number of pupils who omitted to answer a question. In the discussion of pupils' answers, an attempt has been made to indicate the range of response and interpretation by including citations from pupils' written work.

2.16 At the end of Chapter 2 examples of the questions asked about the short story are appended. The instructions given to the assessors who read the pupils' scripts are also given, to provide an indication of the criteria applied in interpreting the responses.

Pupils' interpretation of a short story

2.17 The responses of 11 year old pupils to the short story, *The flying machine* by Ray Bradbury, were described in the report on the 1980 primary survey. In the test

presented to 744 15 year olds, the answer booklet was not identical to that given to the younger pupils, as, during the process of developing the tests, questions were introduced or adapted in ways that seemed particularly appropriate for either primary or secondary pupils. Thus, the overall scores on the tests cannot be legitimately compared, but comparisons can be made between the two age groups on specific questions. The text of the questions referred to is given in full at the end of this chapter. A copy of the story booklet is inserted in the back cover of the report.

2.18 The story is set in China in 400 A.D., and tells how the Emperor Yuan responds to the problem posed by the invention of a primitive form of a flying machine. It describes the Emperor's initial reaction to the sight of the new invention and his subsequent actions in ordering the burning of the machine and the execution of its creator. The reasons for these actions can be interpreted by the reader in different ways. For example, some pupils assumed that the Emperor was motivated by jealousy of the flyer and envy of his marvellous machine, and this interpretation of the story, which is not implied by the author, can be traced in many of the responses of pupils to the questions described below. It was less characteristic of secondary pupils than the younger age group, and the 15 year olds who interpreted the story in this way tended to be the poorer readers.

2.19 A more sophisticated interpretation of the story rests on the Emperor's own explanation of his motives and credits him with altruistic reasons for his actions: he is concerned to protect his country against innovation which may have harmful consequences. Older pupils were more inclined than the younger pupils to interpret events in the story in this way. At both primary and secondary levels, such an interpretation was associated with high scores on the test as a whole, i.e. it was characteristic of the better readers.

2.20 One important issue that is raised in the story concerns the morality of sacrificing the life of one individual for the greater good or prosperity of the population as a whole. Another is that of the control of science and technology: the legitimacy of imposing censorship over new ideas and techniques and, if this is to be done, the question of how, and by whom, such decisions are to be made. Pupils' perceptions of such problems depend, in part, on their previous experience, both in terms of knowledge of the world, and their expectations about the story, which would have been approached with preconceptions derived from previous reading. It was possible to trace among the responses of primary pupils, for example, a tendency to interpret the story as a fairy tale, to explain away the invention as magic, and to see the Emperor Yuan as an archetypal 'wicked' ruler. The pupils' recognition of and response to the moral issues raised in the story are discussed later in the report.

2.21 The dominant character in the story is the Emperor, and the main interest lies in interpreting the reasons for his actions. The minor characters serve mainly to express the general, or expected reactions to events. In the next three paragraphs, pupils' responses to a number of questions that focussed on the characters in the story are described. The first question related to the early part of the story, in which the reactions of the Emperor and his servant to the sight of a man flying in the sky are described. It was pointed out that there was a contrast in the attitudes and reactions of the servant, the Emperor and the flying man, and pupils were asked to suggest a word or a phrase which would express the dominant mood or feeling of

each of them (Ex. 1). Over two-thirds of the pupils were able to suggest a word or a phrase as an appropriate description of the servant and the flyer. Pupils found the reaction of the Emperor more difficult to describe. Although he appears to be calm and gives little indication of his feelings at this stage in the story, his subsequent actions may be thought to justify a different interpretation of his mood. While 24 per cent of pupils suggested words such as 'cool', 'unimpressed', or 'unenthusiastic' to describe the Emperor, around 12 per cent suggested 'frightened', 10 per cent referred to 'anger', and 15 per cent to 'envy' or 'jealousy'. The last description reflects a judgement that is clearly influenced by events that are recounted later in the story.

2.22 Later in the test, a series of questions attempted to explore pupils' understanding of the different viewpoints of the characters in the story. Statements thought to be expressive of these viewpoints were given and pupils were asked to whom these should be attributed (Ex. 2). Around three-quarters of the sample correctly identified the servant (82 per cent), the Emperor (76 per cent), the flying man (72 per cent), and the flying man's wife (74 per cent), and 62 per cent of pupils identified the farmer. In a similar, but not identical, exercise in the 1980 primary survey about two-thirds of 11 year olds had identified the flyer and the Emperor's servant, and about one-third the farmer and the flying man's wife.

2.23 The character of the Emperor gave rise to the widest range of interpretations among both primary and secondary pupils. In the secondary survey, pupils were presented with a series of adjectives that might be used to describe the Emperor and were asked to ring the ones they felt to be most appropriate (Ex. 3). Again, the exercise was similar to one presented to primary pupils. Over half the 11 year olds had chosen to describe the Emperor as being characterised by jealousy, cruelty and cowardice, although a majority had thought him wise. 52 per cent of 15 year old pupils felt that the word 'envious' could be applied to the Emperor although only 25 per cent were prepared to describe him as 'evil'. Around 70 per cent of 15 year olds felt that the Emperor was wise, far-sighted and decisive. 46 per cent saw him as conservative in nature, whereas 24 per cent of pupils thought him to be progressive.

2.24 Three questions focussed on the initial interview between the Emperor and the flyer, that is, on pupils' understanding of the characters' reactions in this situation. The first of these questions asked what the flying man had expected to happen when he was brought before the Emperor (Ex. 4). 76 per cent of pupils indicated that he thought he would be congratulated and rewarded, and a further 14 per cent chose the more specific option that he would be asked to demonstrate his machine again. When the same question was given to 11 year olds in the 1980 primary survey, far fewer of the younger pupils showed that they were aware that the flyer expected praise and reward. Indeed, 30 per cent of them indicated that the flyer had expected to be executed; an option chosen by only 6 per cent of 15 year olds. The primary pupils found it more difficult to make a distinction between what the flyer had expected to happen, and what actually did happen.

2.25 In the course of the interview between Emperor and flyer, the Emperor remarked enigmatically that the flying machine is 'too beautiful'. It can be inferred from this, and from other statements made by the Emperor, that he is planning to destroy or suppress the invention, although no overt authorial comment is made to this effect. When asked which of the Emperor's later remarks came closest to pro-

viding a satisfactory explanation of the statement, 42 per cent of pupils chose the appropriate answer, 'One must lose a little beauty if one is to keep what little beauty one already has' (Ex. 5). The majority of pupils clearly found this remark equally enigmatic in that they opted for other alternatives, amongst which the most popular choice also contained the word 'beauty'. About half the pupils thus seemed unable to explain the remark or to connect it with the Emperor's later explanation of his attitude to the machine.

2.26 In a third question focussing on this interview, pupils were asked to suggest the strategies that they felt the flying man might usefully have adopted, at this point in the story, to avert the Emperor's wrath. The same question had been given to pupils in the primary survey in 1980. The two age groups identified a similar range of options open to the flyer: to flatter the Emperor, to stress the beauty of the experience, the novelty and potential utility of the invention, or to attempt to placate the Emperor's fears. A higher proportion of 15 year olds suggested responses that were intended to flatter or charm the Emperor, either by indicating that the machine had been made exclusively for him or by praising the ruler and his land in extravagant terms. More of the 15 year old pupils felt that the Emperor had not appreciated how useful the machine might become, and stressed the general improvement of life that might result from air travel, or the military applications of the machine.

2.27 The responses to this question indicated the varied hypotheses that pupils made about the Emperor's motivation. The better 15 year old readers (as defined by their score on the test as a whole) opted to appeal to the Emperor's sense of patriotism, or to stress the beauty or utility of the flying machine (Ex. 6). The strategies chosen by the better readers at primary level were, again, to appeal to the Emperor's sense of patriotism, but also to flatter him or to attempt to placate his fears about the machine.

2.28 The author draws an explicit contrast between the flying machine and the Emperor's own invention. The latter is an intricate mechanical garden containing tiny figures, animals, and birds that fly. The Emperor demonstrates his invention to the flyer on their return to the palace, comparing its contained and delimited beauty with the sensation of unrestrained beauty that the other man had experienced in his flight. The questions discussed below show the extent to which pupils perceived the explicit and implicit comparisons that might be drawn between the two inventions.

2.29 Pupils were first asked to identify the two machines and 84 per cent of them were able to do this. (Ex. 7) When asked what the two machines had in common apart from their beauty, 67 per cent of pupils acknowledged their ingenuity and 9 per cent their value. (Ex. 8) In response to a question that asked pupils to identify the most significant difference between the two inventions, 69 per cent of 15 year olds chose the option 'One is only a clever toy while the other might influence the future of China'. (Ex. 9) This answer had been chosen by 29 per cent of 11 year olds when given a virtually identical question in the primary survey. Eleven year old pupils had appeared to be more aware of the dangers and risks that the use of the machines involved, whereas most of the older pupils perceived the more significant difference between the two machines, namely, that the flying machine had the potential to change the future.

2.30 A fourth, and less specific question, that was designed to allow pupils to explore the significance of the miniature garden in relation both to the Emperor and to the story, asked why the Emperor turned to his miniature garden for comfort after the execution of the flyer (Ex. 10).

2.31 22 per cent of the secondary pupils showed they were aware of a possible analogy between the tiny artificial creation and the ordered society over which the Emperor ruled. Some pupils emphasized the security of this miniature world in comparison with the uncontrollable nature of the real one:

"He turns to this because the real world frightens him and he'd rather look at a perfect one."

"Because all the living things in it are being as nature intended, in contrast to the abnormality of a man flying."

Others emphasized that the Emperor had the same perfect control over the garden that he was attempting to impose over his realm:

"Because he knows that it cannot always be like it is, peaceful."

"Because in this he can control what they do and since it is so small he can imagine himself flying over it."

2.32 Over 60 per cent of the sample responded to this question in a way that focussed on the personal significance of the garden for the Emperor. Around 31 per cent interpreted the question to mean 'Why is the garden comforting?' and responded in terms of the qualities that made it so: beauty, peacefulness and quietness. About 8 per cent of these pupils thought that the significant quality of the garden was that it was made by the Emperor himself. About 30 per cent of the pupils took the question to mean: 'Why did the Emperor need comfort?' and answered that he felt guilty, ashamed and worried, or that he wanted to forget the day's events.

2.33 In the primary survey in 1980, pupils were also asked why the Emperor turned to his miniature garden for comfort. Only about 4 per cent of the 11 year olds saw any resemblance between the two inventions or pointed out any analogy between them.

2.34 The two questions that are discussed in detail below have been chosen because they give a clear indication of pupils' perceptions and response to the moral issues implicit in the story. The first of these questions asked in what way the flying man resembled some real scientists and inventors who had lived in later centuries (Ex. 11).

2.35 The better readers (as defined by their score on the test as a whole) showed their awareness of the parallels that could be drawn between the situation depicted in the story and historical reality. 19 per cent of pupils saw the flying man as typical of the scientist who cannot control or is unconcerned by the social or military applications of his research, in that they pointed to the fact that the flyer only saw the personal or beneficial aspects of his invention. Responses that gave an explicit example were rare and usually quoted the development of nuclear power as a case in point, as in:

"Scientists and inventors sometimes invent articles and only think of the beneficial side, e.g. nuclear power."

11 per cent of pupils, and more boys than girls, focussed on the fact that the flyer experienced censorship of his invention and suffered personally for it:

"Many scientists, for example, Pasteur have suffered the crushing of their invention by others."

"... they were also killed or put in prison for what they believed in."

2.36 About 14 per cent of pupils felt that the flying man's similarity to later inventors lay in the fact that he had invented something completely novel, something that had previously been thought to be impossible and, implicitly, which had the potential to change accepted ways of thinking about the world:

"... he was a pioneer"

"... he proved the impossible"

A further 8 per cent of responses may perhaps be seen as groping towards the same point but, in fact, stated tautologously that later inventors had invented flying machines too, or, at least, had invented something:

"He made a flying machine."

"The flying man is very like a scientist because he invented something."

2.37 There are, of course, many similarities that can be established between inventors of different periods. The largest single group of responses (29 per cent) focussed on what the pupils saw as the personal qualities of the creative individual such as courage, daring, imagination and perseverance, or on the way that a man had developed his invention secretly and had been prepared to risk his own life by jumping off a cliff to try it out. The following responses exemplify this romantic stereotype of the scientist:

"They used their imaginations and wild ideas and had courage to test them on their own."

"The flying man worked on his own and was prepared to tell no-one about his invention. He was also prepared to risk his life for it."

"The flying man was daring and courageous. He used skill to make the machine."

2.38 As in the primary survey, the final question of the test asked for the pupils' own judgement of the Emperor's actions and invited them to make an extended statement on the reasons for their opinions (Ex. 12). 15 year olds were a little more tolerant of the Emperor's decision, in that nearly a quarter of them were prepared to argue that the execution of the flying man was fair (as opposed to 19 per cent of 11 year olds). More of the older pupils opted for a balanced answer that came down neither on the side of fairness or unfairness (13 per cent of 15 year olds, 2 per cent of 11 year olds). When these responses were related to the pupils' reading performance the highest scoring group were those who opted for balanced answers, followed by those who argued that the Emperor had acted fairly. The group of pupils who thought that the Emperor had acted unfairly achieved scores close to the average mean test score.

2.39 About 17 per cent of primary pupils had asserted that the Emperor was unfair because he acted out of jealousy. About 10 per cent of 15 year olds indicated that they saw his behaviour in this light and within this group there were nearly twice as many girls as boys. Among girls, the poorer readers appeared to interpret the story in this way. In the 1980 primary report, it was suggested that some 11 year olds were inclined to attribute this motivation to the Emperor because they were unable to believe that such a now familiar invention as a flying machine could possibly pose any sort of threat to society. In their answers, they were inclined to comment on the harmlessness of the machine, or its unique status as the first flying machine ever invented. Fewer 15 year old pupils stressed either of these two points. The overall test score of those who did was below the average, whereas at the age of 11, this response was associated with a better than average reader.

2.40 Other pupils, rather than focussing on the Emperor's motivation, questioned the legitimacy of the way in which the decision was arrived at. The responses of about 27 per cent of secondary pupils (as opposed to 15 per cent of 11 year olds) were classified in this way and, for each age group, such responses were associated with above average scores. The main differences of emphasis between the two age groups were that more 15 year olds felt that the flyer should have had the opportunity to state his side of the case, more argued that his punishment was over-severe, and more stated that the fact that he was unaware of committing a crime should have been taken into consideration.

2.41 Another issue raised by more secondary than primary pupils was that of the futility of the Emperor's attempt to suppress the flying machine. About 11 per cent of 15 year olds commented on the general inadvisability or impossibility of attempting to stop progress, or argued that, in the situation described in the story, the secret was bound to leak out. Only 2 per cent of primary pupils followed this pragmatic line of reasoning, but for both age groups, such a response was associated with a higher than average mean score.

2.42 Issues of motives and means emerged again in the answers of the 15 year old pupils who argued that the Emperor's decision was fair. About 12 per cent of pupils questioned the inevitability of progress, and argued that the maintenance of peace and stability is a legitimate aim of state, or, more commonly, that the Emperor, as ruler of the country, had the right to make the decision and was justified as long as he made it for altruistic rather than personal reasons. Only 2 per cent of primary pupils put forward this point. The older pupils showed more awareness of the military potential of the machine and were more ready to stress the threat of war as a major justification for the Emperor's actions. They were also more ready than the younger pupils to support the argument put forward by the Emperor: that it is legitimate to sacrifice the life of one man to secure the safety of millions. The better readers, as defined by their score on the test as a whole, tended to argue that the Emperor's attempt at suppression must fail, to stress the overriding claim of the maintenance of stability in the kingdom, and the morality of the sacrifice of one life for the general social good.

2.43 Although there are problems in generalising from the answers given by pupils to individual questions, what is it possible to say about the way that pupils of

different ages responded to the story? Perhaps the main point that should be emphasised is that the same general patterns of response are apparent at age 15 and age 11. The older pupils appeared to be more aware of certain aspects or implications of the story but, in all cases, it was possible to analyse the responses in the same way. In most cases, responses that were characteristic of the better readers at age 11 were also characteristic of the better readers at age 15. There was no marked divergence between girls' and boys' responses to the story at either age.

2.44 However, it is interesting to consider the differences between the responses of pupils aged 11 and 15. The most coherent 'alternative reading' of the story that emerged from pupils' responses was one which explained events in terms of the Emperor's jealousy of the flyer. This interpretation at primary level was associated with a test score that was close to the average mean for the age group; at secondary level, it tended to be associated with a significantly lower score. It was suggested earlier that the pupils' interpretation of the story may be affected by preconceptions gained from their previous reading, and the tendency of some 11 year olds to view the Emperor in the same light as the wicked rulers depicted in a number of folk tales has also been noted. However, certain social and political issues are raised by the story and the reader who lacks the sophistication and general 'world knowledge' to perceive these may well fall back on the alternative interpretation of events in terms of personal and malevolent motivation.

2.45 The older pupils appeared to be more aware that parallels could be drawn between the events in the story and the realities of present day life. For example, about a third of the 15 year olds indicated that they perceived in the story an illustration of unrestrained technological development, or the problems of trying to control it. About the same proportion of 11 year olds when asked directly why the Emperor had put the flying man to death chose the answer, 'He fears change'. It is clear that at least a third of each age group realised that the story raised a general problem in relation to the issues surrounding change and development, although the perception of the problem varied between the age groups. For each age group, such awareness was characteristic of the better readers.

2.46 Given that these issues were to some extent perceived, it is possible to make some tentative suggestions about the 'moral stance' that pupils appeared to adopt in relation to them. Few 11 year olds mentioned the concept of progress whereas 15 year olds identified it as an issue raised by the story (in response to one question, about a quarter of 15 year olds felt that it was impossible to prevent the world changing, and another 18 per cent, that it would have been impossible in the context of the story). In their replies to the last question of the test, about twice as many 15 year olds focussed on the impossibility or inadvisability of preventing development as sympathised with the Emperor's attempt to prevent his country changing or indicated some distrust of the concept of progress.

2.47 In both primary and secondary level, more pupils insisted that the sacrifice of one man's life to protect others was immoral than argued that it could be justified, although the 11 year olds appeared to be less aware of this issue. However, evidence from another question showed that the 15 year olds were more ready to see the flyer as an inventor who was blind to the possible destructive effects of his invention than as a scientist who was being victimised by the state, and, overall, more older

than younger pupils were prepared to argue that the Emperor's decision was justifiable. The 15 year olds were also more ready to judge the morality of the Emperor's decision in political terms, in the sense that they were prepared to discuss the issue of how, and by whom, such decisions should be made.

2.48 In general, it is clear that the secondary pupils appeared to be more aware than the primary pupils of the social, political and moral issues raised in the story. In both age groups, pupils who perceived these issues tended to score highly on the test as a whole. The majority of pupils sympathised with the flying man and felt that he had been unfairly treated. However, the better readers tended to feel that the Emperor had acted fairly, to argue in terms of reasons of state and to approve the sacrifice of one life to save millions. The group of pupils with the highest mean score on the test as a whole, however, were the pupils who were inclined to suspend judgement over the Emperor's decision, in that they were inclined to list the points that they considered to be for or against it, but not to commit themselves; perhaps, in this, they showed a recognition of the complexity, and indeed, the almost insoluble nature of the problem confronting the Emperor.

The interpretation and annotation of expository material

2.49 From the beginning of the monitoring programme, it has been recognised that, both in and out of school, reading is frequently associated with other language activities such as discussion or some form of writing activity. In the initial guidelines drawn up by the Language Steering Group, it was proposed that it would be appropriate 'to include in the assessment programme, if possible, tasks that involved both reading and writing activities, such as note-making and paraphrasing or summarising continuous prose'.

2.50 In the 1980 survey pupils were presented with a series of passages, diagrams and illustrations relating to the general topic of *Diamonds*. The materials were presented in two reading booklets. Two trial booklets containing reading matter relating to this theme had been included in the 1979 secondary survey.

2.51 The majority of questions asked about the materials in the booklets can be grouped into the following categories:

1. Pupils were asked to locate and underline, in a text, information relevant to a given topic.
2. They were requested to read a passage and to provide an appropriate title for it or a set of sub-titles for sub-sections within the passage.
3. They were asked to locate a section of a passage about different stages of diamond production and to summarise the processes referred to, either in the form of a summary list or in the form of captions linked to diagrams representing the different stages.
4. They were asked to extract from a passage information relevant to specific issues, such as the country of origin and the location of a number of well-known diamonds, and to present these in a structured form, either in notes of their own devising or in a given framework.

2.52 In addition to the activities referred to above, pupils were asked to answer a number of questions about the formation and production of diamonds. They were also asked to read a passage commenting on the most common shapes of diamonds and, subsequently, to identify and label illustrations of the various shapes in the text. Finally, pupils were asked to answer a number of questions in which they had to make use of a bibliography of books about diamonds and their production.

2.53 In this commentary, attention will be focussed on exercises in which pupils were asked to make notes on what they had read in relation to specified issues. The strategies adopted by pupils in making notes and in presenting information in summary form are of interest for two main reasons.

2.54 In the first place, making notes is a daily activity for the majority of pupils in secondary schools. In many cases, the pupils' own notes provide a tangible record of what has been derived from a course of instruction and the main source of evidence to be used in the revision and consolidation of what has been learnt. In their review of aspects of secondary education, H.M. Inspectors noted that, in the secondary schools visited, 'Much time was spent in the production of 'notes' ranging from the direct copying of someone else's compressed information to the composing of a brief outline from listening or reading'.¹

2.55 Notes made by a pupil on what is read can also provide an indication of the extent to which what has been read has been understood. This is the main justification for incorporating such activities in a programme designed to assess reading performance. Note-making also involves the application of skills and procedures other than those involved in reading and the notes produced can additionally be assessed as exemplifying writing performance. As was mentioned above, the introduction of such composite tasks has been envisaged from the start of the monitoring programme.

2.56 To put the issues to be discussed in broader perspective, it is relevant to note some of the research that has been carried out in the last decade which has made use of summaries produced by readers or listeners of what they have read or heard, as indirect evidence of processes occurring in comprehension and recall. For example, Kintsch and colleagues have suggested that the processes occurring in the *comprehension* of texts are analogous to those involved in the production of *summaries*. In the process model they propose, the meaning elements in a text are first organised into a coherent whole; a second set of operations condenses the full meaning of the text into the 'gist'. From the 'text-base' which is established new texts are generated.¹ Summaries are of particular interest to this group of researchers as they are thought to 'reveal the organisational processes in text comprehension'.²

2.57 Reference was briefly made in the first secondary report to research which was directed towards establishing the characteristics of such 'organisational' processes. It was pointed out that there was considerable evidence to show that in interpreting any text, we change it in many ways, simplifying and adding to it when necessary to preserve coherence and to relate to it prior knowledge.¹ There is an obvious sense in which effective note-making also involves the reconstruction and reorganisation of text. The research referred to is therefore of interest in the context of a study of the pupils' responses to the exercises discussed below.

¹ Department of Education and Science, *Aspects of secondary education*, HMSO, 1979.

¹ W. Kintsch and T. van Dijk, 'Toward a model of text comprehension and production', *Psychological review*, 85, 5, 1978, 363-394.

² W. Kintsch and E. Kominsky, 'Summarising stories after reading and listening', *Journal of educational psychology*, 69, 1977, 491-499.

¹ cf N. Marshall and M. Glock, 'Comprehension of connected discourse: a study into the relationships between the structure of text and information recalled', *Reading research quarterly*, XIV, 1, 1978-9. B. Meyer, *The organisation of prose and its effects on memory*, North-Holland, 1975.

2.58 The first exercise to be discussed was included in a booklet used in the 1980 survey. In it, pupils had to extract from a passage information about three issues and to ignore or discount irrelevant information. The second exercise to be discussed was included in the 1979 survey materials. In this case, pupils were asked to make a summary of the main points in a passage. They were provided with a list of topics which, it was suggested, might be used as sub-headings. In both cases, therefore, a framework for note-making was suggested, but it was made clear that pupils were free to structure the notes as they thought appropriate.

Exercise 1

2.59 The responses given by 598 pupils to Exercise 1 were analysed in detail and these are discussed below.

2.60 Pupils were asked to read the following passage and to make their own notes on three issues:

- 1 the country of origin
- 2 the colour
- 3 the present location of the various diamonds mentioned.

A web of mystery, romance, murder and intrigue surrounds many famous diamonds.

The Kohinoor, a famous Indian diamond, can be traced back through the centuries to 1304 when it was owned by the Rajah of Malwa in India. Two hundred years later it came into the possession of the Sultan Baber, first of the Mogul Emperors, and was passed down from each reigning Mogul to his son until 1739 when Nadir, Shah of Persia, invaded north-west India, plundered Delhi, and seized the Kohinoor. He is said to have exclaimed 'Kohinoor!' (mountain of light) when he first beheld the white stone, and this name has clung to it ever since. The possession of the Kohinoor is said to give a man power to rule the world. One Mogul, who refused to tell his enemies the stone's hiding place, had boiling pitch poured over his head and his eyes put out.

The Orloff, a huge rosecut diamond, is said to have been stolen from the eye of a Brahmin idol in Madras, in India. A similar story is told about the Hope diamond which was brought as a gift to Louis XIV of France by a gem collector, Jean Baptiste Taverner. On one of his many trips to Africa he had heard about a fabulous stone mounted in the forehead of a gold statue of the god, Rama Sita. The story says that because the guardian priests of the god refused to sell the stone, Taverner and his party bound them, prised the jewel out of the statue's head and then fled back to France. The Hope has long been called a diamond of ill omen and been associated with misfortune and tragedy. This may be superstition, but it is known that its discoverer, Taverner, was torn to pieces by a pack of wild dogs, that the French queen, Marie Antoinette, who is reputed to have possessed it, met her end on the guillotine, and that a later owner, a merchant from Antwerp, committed suicide under strange circumstances.

Names of famous people of the past cling to many stones. The Orloff is associated with Catherine the Great, to whom it was presented by an admirer, Prince Gregory Orloff. Catherine coolly took the diamond but rejected Orloff who had hoped to become her husband. The Hope was associated with the kings of France until it was stolen in a great jewel robbery in 1792, while the Kohinoor belonged to the Mogul Emperors of India until, by way of the East India Company, it came to

Queen Victoria and later was set in the crown Queen Elizabeth, the Queen Mother, wore for her coronation in 1937. Like another huge diamond, the Cullinan, it is now with the Crown Jewels in the Tower of London.

Diamonds such as these come from all corners of the globe and in many colours, white, pink, yellow and, rarest of all, blue, like the Hope. Although many of the famous stones are ancient, some have been discovered quite recently. In 1934, Jacob Jonker, an aged diamond prospector, was walking over his small farm near Pretoria in South Africa when he noticed a round, muddy object, about the size of a hen's egg, lying on the ground. It turned out to be one of the largest diamonds ever discovered and was named the Jonker after its finder. An enormous stone called the Cullinan was found at the Premier mine in South Africa in 1905. It was three times larger than any other known diamond, and was carved into the two biggest cut stones in the world, the 'Greater Star of Africa', and the 'Lesser Star of Africa'. Most famous and blood stained jewels are now safely locked up in treasuries or museums, the Hope in the Smithsonian Institute in New York, the Orloff in the Russian State Treasury, and the Cullinan or the 'Stars of Africa' with other more notorious stones in the Tower of London.

2.61 There were references to five diamonds in the passage. The country in which they were found or mined was referred to in each case, the colour of the diamond was referred to in two cases, and the present location of the diamond, in four cases. For each diamond, the information relating to the three points at issue was to be found in more than one paragraph.

2.62 In extracting and noting the relevant information about the five diamonds, pupils had a choice of strategies. They could, for example, adopt the framework suggested by the three topics referred to in the question and use these as sub-headings under which they noted information relevant to each diamond. Other less economical strategies might also be adopted, such as recording information in the order in which it is presented in the text.

2.63 6 per cent of the pupils noted all the available evidence relating to the different diamonds. The pupils in this high-scoring group adopted one of two strategies. Over two-thirds (26) adopted an approach in which the names of the diamonds were used as sub-headings, with reference to which information about the three factors was listed. An example of the method of presentation used by pupils in this group is given below:

"Kohinoor

1. Country of Origin = 1304, owned by the Rajah of Malwa, India.
2. Colour = name means 'mountain of light'. Stone is white.
3. Presently at = Tower of London.

Orloff

1. Country of Origin = Madras, India.
2. Colour = White
3. Presently at = Russian State Treasury

Hope

1. Country of Origin = Africa
2. Colour = Blue (rarest of all colours).
3. Presently at = Smithsonian Institute, New York.

Jonker

1. Country of Origin = Pretoria, South Africa
2. Colour = White
3. Presently at = Tower of London

Cullinan

1. Country of Origin = 1905, South Africa
2. Colour = White
3. Presently at = Tower of London with the 'Stars of Africa' which were once part of the Cullinan."

2.64 In two cases, pupils in this high-scoring group arranged the evidence in the form of a frame similar to that illustrated below:

<u>"Name</u>	<u>C. of Origin</u>	<u>Colour</u>	<u>Present Home</u>
Kohinoor	India	White	Tower of London, England
Orloff	India (Madras)	Rosecut	Russian State Treasury
Hope	Africa	Blue	Smithsonian Inst. New York, US.
Cullinan	South Africa	(?)	Tower of London

Others:

Jonker — found in South Africa.

(Cullinan — cut into 2 to form —) Greater and lesser Star of India
found also in South Africa."

2.65 One pupil presented the evidence about each diamond in paragraph format. The remaining pupils in the highest scoring group presented the evidence under the three sub-headings given in the question as in the following example:

"Countries of origin

The Kohinoor came from India

The Orloff also came from India

The Hope Diamond came from Africa

Jonker South Africa

Cullinan found in South Africa

Colours

The Kohinoor was white

The Orloff is rose coloured

The Hope Diamond is Blue

Present homes of the diamonds mentioned

The Kohinoor is now in British crown

The Hope is in the Smithsonian Institute

Orloff is in the Russian State Treasury

The Cullinan and Stars of Africa are now in the Tower of London."

2.66 A further 30 per cent (182) of the pupils extracted six points or more of the total of eleven points stated in the passage. Thirty-eight per cent of the pupils (224) correctly noted from 1 to 5 of the eleven points. Thirteen per cent (78 pupils) attempted the question but extracted none of the information in the form requested. A further 13 per cent did not reach the question or omitted it.

2.67 The scripts of the pupils in the group who attempted the question, but who failed to supply any of the points about the diamonds correctly were re-read to identify sources of error or misunderstanding.

2.68 A number of pupils in this group misinterpreted the question. As noted above, this specified that they should make notes from the passage on the country of origin, colour and present home of the various diamonds mentioned. Approximately 3 per cent of pupils in the sample understood the reference to 'the passage' to mean the booklet as a whole. Such pupils made an effort to extract information relating to one or more of the three areas of concern e.g. the areas in which diamonds were to be found. All but two abandoned the attempt after writing less than a page.

2.69 A second group (approximately 5 per cent of the sample) who obtained a zero score focussed attention on the passage in question, but avoided specific reference to the diamonds. An example of such work is given below:

"1. Country of Origin: Diamonds seem to have originated from India and also Africa and South America. Many of them get their names from their country of origin e.g. 'Greater Star of Africa'.

2. Colour: Colour of diamonds varies from white, pink and yellow to blue. Blue coloured diamonds very rare.

3. Present home of various diamonds: The most famous diamonds — whether due to size and colour or story — are locked up safely in museums. The most notorious are in the Tower of London."

2.70 The two most prevalent characteristics of the scripts which were assigned low marks (5 or less) were, firstly, the failure to relate the information given to specific diamonds, as was requested and, secondly, the tendency to reproduce evidence from the passage which had no bearing on the points at issue. For example, in the following script, the information given under the heading 'Present home of the various diamonds' has no direct relevance to this topic. Again, the commentary under 'Origin' refers primarily to the history of a single diamond (the Kohinoor). The relevant information with respect to that diamond is implied in the first line; the remainder of the section is redundant.

1) ORIGIN

1304 the famous Indian diamond owned by the Rajah of Malwa. Sultan Babar first of the Mogul Emperors had possession of it two hundred years later. It was passed down frequently until, in 1739 the Shah of Persia invaded north-west India and seized the Kohinoor and exclaimed 'Kohinoor' (mountain of light) this

name has stayed with until this day. A person who refused to tell the hiding place of the stone, was severely punished.

2/ Colour

There are a variety of different colours which come from all corners of the world. Some of the colours are, Pink, yellow, and a very rare one which is blue.

Present home of the various diamonds

The Orloff diamond is associated with Catherine the great. The Hope was associated with the Kings of France but was later stolen in a jewel robbery. Kohinoor belonged to the Mogul Emperor. Crown was worn by the Queen Mother in her coronation.

2.71 In conclusion, it can be said that, in completing the exercise, a relatively small proportion of pupils adopted the most economical method of note-making that would suffice for the purpose of recording evidence about the three issues. In the majority of cases, the records that were made would not have provided a clear basis for subsequent revision.

Exercise 2

2.72 A second group of pupils read the passage discussed above and provided information about the three issues discussed. However, in this case, it was suggested that they should record the information with reference to the following framework. It was pointed out that they might not be able to complete every section in the framework.

	Colour	Country of origin	Where to be found now
Cullinan			
Hope			
Jonker			
Kohinoor			
Orloff			

2.73 Within this framework, the majority of pupils found it possible to locate information which was given explicitly in the passage about the three issues. For example, the five questions relating to the country of origin of the diamonds mentioned were answered correctly by between 58 per cent and 83 per cent of pupils.

2.74 In the exercise discussed above, pupils were asked to make their own notes on the passage that they had read with specific reference to three issues: the country of origin, colour and present location of the various diamonds mentioned. As was expected, the general prescription that they should make notes for their own purposes was interpreted in different ways. Many pupils, for example, employed forms of expression and methods of presentation which would not be appropriate if the notes were intended to be used by a person other than the writer. However, provided that the main points at issue were sufficiently clearly designated to provide a basis for subsequent reference by the pupil, they were judged to be adequate for the purpose.

2.75 The lack of specificity about the form that the notes should take and the purposes for which they might subsequently be applied may have encouraged some students to adopt a more casual approach to the task than would be the case in normal classroom conditions. The fact that the exercise was the final task in the booklet may also have had some effect on the pupils' response to it.

2.76 In the 1979 reading survey, pupils were asked to carry out an exercise on the *Diamonds* booklets which involved their making notes on a passage in which the purpose of the note-making required was specified and in which the task occurred as one of a sequence of activities and not as the concluding exercise in the booklet. 637 pupils completed the booklet. The responses of a randomly selected 15 per cent sample of pupils were analysed to provide further evidence about their approaches to note-making.

2.77 Pupils were asked to read through the following passage and to summarise the main points in note form. They were provided with a set of suggestions for sub-headings. These were as follows:

Reason for cutting diamonds.

Important advances in gem cutting techniques.

Stages in the process of cutting a diamond.

Typical shapes used in diamond engagement rings.

It was, however, stressed that they were free to decide on their own sub-headings and to include diagrams and flow charts if they wished.

Diamond cutting

Sparkle . . . fire . . . brilliance . . . whatever you may call it, it gives a diamond its life and magic. You may wonder about this sparkle. Why do some diamonds sparkle more than others, and does this affect the price? The answer to these questions lies in the cutter's art. No diamond sparkles to begin with. Many, in fact, have an oily looking film when they come from the ground. For centuries it was not known that this 'skin' could be polished off or the stone cut with planes to catch the light and thus produce 'fire'.

The Hindus first discovered that 'only a diamond will cut a diamond' and this is still true today. Hindu lapidaries, or gem cutters, merely polished diamonds as they

Comparison with an exercise carried out in the 1979 secondary survey

found them, cutting facets here and there to eliminate flaws and reflect light. Their idea was to save as much weight as possible.

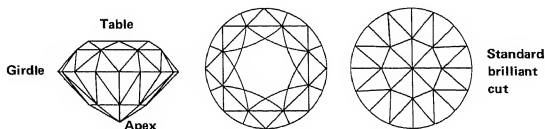
The first major advance in the area of cutting is thought to have occurred in the fifteenth century when the cutting of diamonds according to a deliberate geometrical pattern originated in the Low Countries. This process brought out to an unprecedented degree the brilliance and 'fire' of a diamond.

The second advance was at the end of the seventeenth century when the Venetian, Peruzzi, invented the brilliant-cut, which proved so superior to its predecessors that, with some modification, it has remained the most popular cut to this day.

Diamond cutting is a long and careful operation. First, the rough stone has to be studied and marked for dividing. Some stones are cleaved or split along their 'grain'. But most stones are sawed across the grain by a thin blade coated with diamond dust and revolving at high speed. Sawing even a small diamond can take hours. Then the stone is set onto a lathe and its corners are rounded off by holding another diamond against it. This is called 'rounding' or 'bruting'.

Next the stone is set into a holder and held against an iron plate coated with a mixture of diamond dust and oil which revolves like a gramophone turntable. One by one, the facets are ground into the diamond, each facet set at a precise angle to its neighbours. To make sure, the cutter has to stop and inspect the stone through a magnifying glass hundreds of times. If too much has been ground away, it can never be put back.

Several shapes are used for diamond engagement rings. The brilliant, marquise, pear and oval shapes all have 58 facets for the maximum play of light. Above the girdle of the stone there are 32 facets and the 'table' (which is the largest facet) and 24 facets and the 'cutlet' or point below the girdle.



In the Answer Booklet are diagrams that show the facets as you look down on top of the stone. The brilliant is the 'classic' shape that is always popular. The graceful boat-shaped marquise and the straight-sided emerald-cut give a different eye interest. The pear shape is lovely, worn with the point towards the fingertips. An oval looks larger than a round diamond of the same weight. The single-cut and the square baguette are small diamonds, generally used as side stones or to add decoration around a larger stone.

Some of the older cuts produced less sparkling gems. Even in the old brilliant-cut stones the facets were not cut at the proper angles to take full advantage of the diamond's power to bend light rays. Rose-cut diamonds were flat at the bottom, with facets on the domed top. A well-balanced, brilliant-cut diamond sends the light back from within the stone to produce an extraordinary radiance.

2.78 It was anticipated that a complete summary would be similar to the following version (prepared for the use of assessors) in content, although it was expected that pupils would use a variety of devices to further summarise and paraphrase the points noted.

Diamond Cutting

1. *Reasons for cutting diamonds:*

It's cutting that makes diamonds sparkle, gives brilliance. None sparkle to begin with; many have oily film when taken from the ground.

2. *History of diamond cutting:*

a) *Hindus first discovered a diamond could cut a diamond: cut planes to reflect light. But they cut the minimum, to retain weight.*

b) *1st major advance in cutting: use of deliberate geometric pattern (Low Countries) to bring out the brilliance and 'fire'.*

c) *2nd advance: invention of 'brilliant' cut by Venetian, Peruzzi; so good it's still the most popular today.*

3. *Stages in process of cutting a diamond:*

1) *Stone studied and marked for dividing. Some cleaved along grain, most sawed across, with thin blade coated with diamond dust revolving at high speed. Takes hours.*

2) *Stone set in lathe; corners rounded off with another diamond set against it: 'rounding', 'bruting'.*

3) *Stone set in holder and held against iron plate coated with diamond dust and oil revolving like turntable. Facets ground in, each at precise angle to its neighbour. Inspection necessary hundreds of times.*

4) *Typical shapes used in diamond engagement rings:*

Brilliant – most popular

Marquis – boat shaped

Pear

Oval

All these have 58 facets for maximum play of light.

Other shapes: emerald cut, single cut, square baguette, rose-cut.

2.79 The pupils' notes were first marked impressionistically by two assessors on a rising scale of 1–7, i.e. they were dealt with using the same procedures as are used in marking extended writing tasks in the survey of pupils' writing.

2.80 The distribution of impression marks across the scale is indicated below.

	Rating Scale						
	1	2	3	4	5	6	7
% of pupils in the sub-sample	6%	9%	22%	25%	20%	11%	7%

2.81 7 per cent of the scripts were assigned a mark of 7. All the scripts in this category had the following characteristics.

The notes made reference to all the main points in the passage and they showed no evidence of misunderstanding of the issues referred to. They made no reference to irrelevant or subsidiary issues and they took account of the relative significance of points made in the commentary, giving appropriate emphasis to the main ideas. Pupils in this group all showed an ability to take account of related facts given in different parts of the passage and to associate these in their summaries.

2.82 In all scripts in this group, the style of expression was neither verbose nor cryptic.

2.83 In all cases, also, the layout of the notes reinforced the meaning of the text. All the writers employed sub-headings, clearly separated from the body of the notes, most commonly by means of underlining. In one case, a pupil used capital letters for headings and, in another case, a new line to differentiate the sub-headings from the text.

2.84 Examples of two scripts in this category are given below.

Example 1

“REASONS FOR CUTTING DIAMONDS: to give diamond its ‘fire’ by catching light, to eliminate flaws and imperfections.

ADVANCES IN GEM CUTTING TECHNIQUES

15th century, diamond cutting to geometrical pattern evolved in low countries. 17th century – Peruzzi invented brilliant cut diamond, still most popular with modifications.

STAGES IN THE PROCESS OF CUTTING DIAMONDS

Rough stone studied and marked for division, stone set into lathe and corners rounded off – rounding, bruting.

Stone set into holder, facets ground into diamond, each at precise angle to each other.

TYPICAL SHAPES USED IN DIAMOND ENGAGEMENT RINGS

Marquise, pear, oval, 58 facets – 32 above girdle – 24 below. Brilliant – classic cut still popular. Boat shaped Marquise – straight sided emerald cut. Pear shape worn with point towards fingertips. Square baguette and single cut – side stones or decoration.”

Example 2

“Reasons for cutting diamonds: when found, diamonds have an oily looking film around them and to remove this the diamonds are polished and cut.

Cutting diamonds: only a diamond can cut a diamond. In the 15th century diamonds were cut to a deliberate geometric pattern; before they had been cut to eliminate flaws and reflect light. At the end of the 17th century Peruzzi invented the brilliant cut, it was superior to the others and is the most popular cut today.

Stages in diamond cutting: rough stone studied and marked for dividing. Stones split or sawn across grain by a blade covered with diamond dust and rotated quickly. Stone is set into a lathe, corners are rounded off by another diamond being held against it. Stone is set into holder. The facets are ground into the diamond, being inspected regularly through magnifying glass.

Shapes of diamond engagement rings: The marquise, pear and oval have 58 facets; the classic, the boat shaped marquise, the straight sided emerald cut, the single cut, the square baguette, rose-cut and the old brilliant cut."

2.85 11 per cent of the sub-sample were assigned an impression mark of 6. In the scripts, a variety of structuring devices was used, some in combination, that would help to make the notes relatively easy to re-read. These devices included appropriate paragraphing, sub-headings over some or all sections, and dashes between each brief point. In general, however, scripts in this category were less clearly structured in layout, cogent in expression or comprehensive in content than scripts assigned a mark of 7.

2.86 20 per cent of the scripts were given an impression mark of 5. Scripts in this category presented an adequately comprehensive summary which was restricted to relevant issues. However, in the majority of scripts in this category one or more points made by the writer had been misunderstood or not given appropriate emphasis, e.g. reference was made to Peruzzi's invention of the brilliant cut but not that it was so effective that it is still the most popular technique of cutting. There was a clear tendency for scripts in this category to contain reference to information of subsidiary relevance and/or to be cursory. (One script consisted of one word notes separated by dashes). Approximately half of the scripts did not use a system of sub-headings or adopt a form of layout which reflected or exemplified the main divisions in content.

2.87 Two of the scripts assigned to this category are given below:

Example 1

"Reasons for cutting diamonds: The Hindu Lapidaries cut diamonds to eliminate flaws and reflect light to save as much weight as possible. It was said that cutting diamonds brought out the brilliance and fire in them. One large diamond would not look right on a ring so they are cut up into smaller pieces and arranged on to the ring.

Important advances in gem cutting techniques:

The first occurred in 15th century when the cutting of diamonds according to a deliberate geometrical pattern originated in the low countries. The second occurred in 17th century when the brilliant cut was produced by Peruzzi.

Stages in the process of cutting a diamond:

1. Rough stone studied and marked for dividing. They are cleaved or split along the grain, but mostly sawn across by a thin blade coated with diamond dust revolving at high speed. Stone set onto a lathe and its corners rounded off, this is called 'rounding' or 'bruting'.

2. Stone set in a holder and held against an iron plate coated with diamond dust and oil. Facets ground into diamond and set at a precise angle.

Typical shapes — Pear and Oval."

Example 2

"Reasons for cutting to reflect light and eliminate flaws. First major advance during 15th century to geometrical patterns and shapes. Second advance at end of 17th century. Invention — the 'brilliant cutter'. The first stage of diamond cutting is that the rough stone has to be studied and marked for dividing; most diamonds are sawn across the grain by a thin blade coated with diamond dust and revolving at high speed. This can take hours. It is then

shaped on a lathe by another diamond – called ‘bruting’ or ‘rounding’. Each facet is grounded out of the diamond. The 3 main shapes for engagement rings are marquise, pear and oval.”

2.88 Just over half of the scripts that were assigned an impression mark of 4 used no clear method of structuring their notes. A majority of scripts in this category did not take account of the fact than an adequate summary would involve noting *all* the main points, i.e. that it was necessary to take account of the passage as a whole and not just a part of it. For example, a number of scripts focussed on material of interest in the last paragraph of the passage and others omitted mention of advances in gem-cutting techniques. Most scripts also showed evidence that the pupil had some difficulty in establishing the relative significance of the points made.

2.89 In all cases, also, the main points advanced were inadequately specified. Three examples of scripts assigned to this category are given below, including a copy of a script in which careful but inappropriate emphasis was given to the description of techniques of cutting diamonds.

Example 1

“Reasons for cutting diamonds.

A diamond is cut, to make it catch the light and sparkle. Important advances in gem cutting techniques: it was discovered that only a diamond will cut diamond. A deliberate geometrical pattern was used to bring out the brilliance of the diamond.

Stages.

The skin is polished off and the stone is marked for dividing and then they are split or sawn to make the plane, the corners are then rounded off. The facets are then ground into the diamond.”

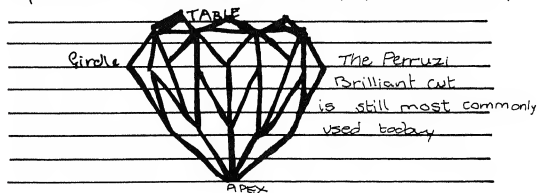
Example 2

“Diamonds are covered with an oily film that can be polished off, or the stone cut with planes to catch the light and make fire. Hindus first discovered that only a diamond will cut a diamond.

Diamond cutting: long and careful operation. The stones are sawn across the grain and then corners rounded off with another diamond called ‘rounding’ or ‘bruting’. Held against an iron plate coated with mixture of diamond dust and oil. Pear and oval shapes have 58 facets. Above girdle 32 facets .24 cutlet.”

Example 3

Price of diamonds - the price of a diamond ~~all~~
depends on the brightness of its sparkle its
size and its cutter (only a diamond cuts a diamond)
Brilliant cut - The brilliant cut was invented
by Perruzzi and is still most popular cut today



Example 3 (continued)

Shapes of diamonds - There are several shapes of diamonds in the engagement ring the brilliant marquise or pear and oval shapes are used. This diamond has 24 cut sides (facets) on the table and a total of 58 facets overall.

2.90 22 per cent of the scripts were given an impression mark of 3. Characteristically, these notes provided no evidence that the writer was aware that the main points in the passage were to be covered. The notes in this category could not be taken to provide an outline of what the passage contained insofar as they were either inaccurate or incomplete in content. Examples of all the devices used in laying out the text in scripts that were assigned higher marks on the scale were also found in this group of scripts, e.g. numbering, the use of new paragraphs, sub-headings and the appropriate use of new lines, but there were fewer instances of such usage. The majority of scripts in this category were presented in the form of one or two paragraphs.

2.91 Two examples of scripts in this category are given below:

Example 1

"Stages in the process of cutting.

Diamond cutting is a long and careful operation. The rough stone has to be studied then marked for cutting. Some stones are split along their grains. Most stones are sawn across the grain with a thin blade coated with diamond dust, and revolving at a fast speed. Sawing small diamonds take a long time to cut. The diamond is put on a lathe where the corners are rounded by using another diamond. This is called 'rounding' or 'bruting'. Then they are put into place, cleaned and sent to the shops where they are sold."

Example 2

"Reasons for cutting diamonds was because they had a brilliant light as they caught the sun and they reflected fire. The advances brought out the beauty of a diamond and when cut they reflected the brilliance and 'fire' of a diamond. The diamond has to be polished because when it comes out of the ground it is oily. For many years it was not known that this oily stain could be polished off. Diamonds can be cut with planes so that it can catch the light. Typical shapes used for rings are the brilliant, marquise, pear and oval shapes."

2.92 9 per cent of the scripts were assigned an impression mark of 2 and 6 per cent an impression mark of 1. The former contained information that had a bearing on the passage, but which was too sketchy to convey an impression of the main points advanced. Six of the scripts were four to six lines in length, and approximately half of the scripts focussed on a single point. Those that attempted to deal with more than one issue tended to make no clear distinction, either in content or presentation, between the different matters referred to.

2.92 Two examples of scripts given an impression mark of 2 follow:

Example 1

"Reasons for cutting diamonds - is the sparkle that gives the diamonds its beauty and men cut the diamonds as early as the fifteenth century. The diamonds can be cut to different shapes like .32 cuts or .24.

Example 2

"Reasons for cutting diamond to improve the oily skin on it. Advances in diamond cutting to cut a geometrical design brings out more fire in a diamond. Peruzzi intended brilliant-cut rounding and bruting. Rounding a diamond, the diamond is held on an iron plated coated in oil and coated with dust and oil."

2.94 All the scripts given an impression mark of 1 were very brief. Two of the scripts dealt with material not in the passage. A number of scripts were, in part, unintelligible. Examples of scripts given an impression mark of 1 are given below.

Example 1

"The reasons for cutting diamonds are because they are big and because its got life and magic and when they found them they were already cut because diamonds can cut themselves but the idea is to save the weight."

Example 2

The first Major advance in the way of cutting a in above fifteenth century when the cutting of demands according to a deliberate geometrical pattern originated in the Low Countries

2.95 In conclusion, it can be said that those pupils who completed the exercise found the sections about the stages of cutting diamonds and typical diamond shapes more difficult to summarise concisely than the two initial sections. The third section of the passage contained much detail about the successive stages of diamond cutting, each of which had significance relative to the others. The fourth section contained details of a variety of diamond shapes and few generalisations with reference to which such detail could be subsumed. In the face of such complexity, the reaction of many pupils was to produce notes that were reproductive rather than reconstructive, or to make a record that was so cursory as to fail to reflect the original text.

The assessment of reading performance: main findings

2.96 Pupils were asked to read and answer questions relating to one of eight booklets. A selection of their responses to questions asked about two of the booklets has been reported on. Reference has also been made to an exercise in note-making that was completed by pupils who participated in the first secondary survey in 1979.

2.97 In answering questions about *The flying machine*, the majority of 15 year old pupils showed that they were able to follow the sequence of events in the story and to understand the attitudes of the characters involved.

2.98 Pupils placed different interpretations on the actions of the Emperor and on his motivation for acting as he did. A minority of pupils, for example, assumed that the ruler was motivated by jealousy and cruelty and looked no further for an explanation of his actions. However, the responses of about 70 per cent of the pupils reflected a more complex interpretation of the causes for the Emperor's actions. The

majority of pupils presented their interpretations in a reasoned and coherent form. A similar proportion of pupils showed that they were able to draw meaningful comparisons between the inventor in the story and the lives of historical or contemporary scientists.

2.99 A representative sample of 11 year old pupils was asked to read *The flying machine* in May 1980. All the questions answered by both groups were answered more successfully by 15 year old pupils. The average difference between the facility values of the questions common to both groups was around 21 per cent. The scores of pupils in the two age groups were closest in relation to two questions which involved attributing statements to the fictive characters in the story. The question which produced the greatest divergence in scores was one that focussed on the significance of the invention of the flying machine in terms of its potential to change society (Ex. 9).

2.100 A more general consideration of the ways in which 11 and 15 year olds interpreted the story shows that, while the same patterns of response were apparent at each age level, the older pupils were less likely to explain the story in terms of the personal emotions of the characters involved and more able to relate the story to their own experience. In general, they showed a clearer realisation of the complex nature of the problem confronting the Emperor.

2.101 Two groups of pupils were asked to complete a series of tasks which involved the interpretation of expository material on the theme of diamonds and their production. In one of the exercises, pupils were required to read a passage containing information about a number of diamonds and to record evidence about each diamond with respect to three issues. The scripts of 598 pupils who completed the exercise were analysed. Pupils who specified all the available evidence tended to impose a clear organisational structure on their notes and to adopt one of two strategies. Approximately two-thirds gave the names of the five diamonds referred to as sub-headings under which they listed information about three topics; or they provided the relevant evidence in three sections, each relating to one topic. Two prevalent features of scripts assigned low marks on the exercise (5 or less of a total of 11) were the failure to relate the evidence given to specific diamonds, as was requested, and the tendency to reproduce irrelevant evidence.

2.102 In a second exercise, completed by a different sub-sample, the same passage was presented to the second group of pupils with a chart containing the names of the diamonds and sub-headings under which the relevant details could be recorded. Given this framework, the majority of pupils, who completed the exercise correctly, recorded information about the country of origin, present location and the colour of the diamonds.

2.103 Chapter 2 also presented a discussion of pupils' performance on a task that was included in the 1979 reading survey. Pupils were asked to summarise the main points of the passage under four sub-headings. The resultant scripts were impression marked on a scale of 1-7. Scripts allocated to each of the seven categories were then analysed so that features that were characteristic of each group of scripts could be identified.

2.104 18 per cent of the scripts were assigned impression marks of 6 or above. Characteristically, these scripts made adequate reference to the main points in the passage and to these points exclusively. They also employed a form of layout which reflected the main divisions in content. 15 per cent of the scripts analysed were assigned impression marks of 2 or below. Such scripts reflected no clear distinction, either in content or presentation, between the four main issues. All but one of the scripts in this category were brief and a number were, in part, unintelligible. 67 per cent of the scripts were given an impression mark of 3, 4 or 5.

2.105 From the results of the exercises involving interpretation and note-making, it can be inferred that the main difficulties faced by pupils in answering the questions did not stem from an inability to read and understand the passages in question. The difficulties stemmed, rather, from the requirement that pupils should select and 'reconstruct' the information given about specific issues and present salient features of content in a clearly structured and succinct form.

Examples of questions on *The Flying Machine*

Ex. 1

There is a clear contrast in the attitudes and reactions of the Emperor, the flying man and the servant on pages 2, 3 and 4. Suggest a word or phrase which would express the mood or feeling of each of them.

Markers were told to accept: any word or phrase that conveyed the impression the Emperor was cool, unimpressed, calm, worried, unenthusiastic or a quotation such as 'Yes, too beautiful'.

Emperor

% correct 24

% omitted 5

The words most frequently suggested by pupils were 'frightened', 'jealous', and 'angry'.

Flying man

% correct 68

% omitted 5

The words most frequently suggested by pupils were 'proud', 'happy' and 'pleased'.

Servant

% correct 67

% omitted 5

The words most frequently suggested by pupils were 'excited', 'happy', 'astonished' and 'bewildered'.

Ex. 2 Here are some opinions about the flying man. Read each one, then decide which of these people in the story might have expressed it: the Emperor, the servant, the flying man, his wife or the farmer. Write your answer on the line provided.

'A wonderful magician, he can fly in the air like a great dragon!'	% correct 82
<i>The correct answer is the servant.</i>	% omitted 3
'A genius, yes, but also a fool.'	% correct 76
<i>The correct answer is the Emperor.</i>	% omitted 4
'A madman who wastes his time flying kites.'	% correct 74
<i>The correct answer is the flyer's wife.</i>	% omitted 4
'A man who sought beauty and freedom for which I was cruelly punished.'	% correct 72
<i>The correct answer is the flying man.</i>	% omitted 4
'It was only some strange bird, high in the morning air, or perhaps just a vision.'	% correct 62
<i>The correct answer is the farmer.</i>	% omitted 4

Ex. 3 During the story we learn a certain amount about the personality of the Emperor. Choose the words from the following list which APPLY to him. Indicate your choice by putting a circle round the figure 1. If a word DOES NOT APPLY, put a circle round the 2.

	APPLIES	DOES NOT APPLY	% correct	% omitted
EVIL	1	2	25	5
WISE	1	2	70	5
MERCIFUL	1	2	25	5
THOUGHTFUL	1	2	73	6
DECISIVE	1	2	71	7
SERENE	1	2	43	9
FAR-SIGHTED	1	2	66	5
CONSERVATIVE	1	2	46	8
PROGRESSIVE	1	2	24	6
ENVOIOUS	1	2	52	5

Ex. 4

What does the flying man expect to happen when he comes before the Emperor?

- | | |
|--|------------------|
| 1. He will be executed | (6) |
| 2. He will be congratulated and rewarded | (76) |
| 3. He will be imprisoned | (1) % correct 76 |
| 4. He will be asked to give further demonstrations | (14) % omitted 1 |
| 5. He will be sent home to his wife | (2) |

Ex. 5

The Emperor says the flying apparatus is 'too beautiful' but does not explain what he means. Which of his later remarks comes closest to giving an explanation?

- | | |
|---|-------------------|
| 1. 'It is only necessary that he create, without knowing why he has done so ...' | (9) |
| 2. 'I felt my heart move with you in the air.' | (17) |
| 3. 'One must lose a little beauty if one is to keep what little beauty one already has.' | (42) % correct 42 |
| 4. '... and the other man will have an evil face and an evil heart, and the beauty will be gone.' | (23) % omitted 2 |
| 5. 'Oh, look at the birds, look at the birds.' | (6) |

Ex. 6

The Emperor is not satisfied with the flying man's answer to his question, 'What have you done?' (Page 4). Suggest an alternative answer for the flying man which might have persuaded the Emperor to spare his life.'

Markers were told that a correct answer would indicate an appeal to the Emperor not on the grounds of the beauty of the machine (for he tries this and it doesn't work) or the experience, but on the basis of the future utility of the invention, its exclusiveness, or of the benefits it might bring.

	% correct 28
	% omitted 4

Analysis of responses

¹ Overall mean score on test: 55.0. For further information on the way the mean score is expressed see Chapter 5.

Category	% of pupils	Mean score on test ¹
1. Attempts to flatter or bribe the Emperor.	20.7	55.3
2. Stress on beauty of machine or the experience of flight.	17.2	56.5
3. Utility of the invention emphasised e.g. transport, military uses.	14.6	56.5
4. Stress on novelty of machine or cleverness of inventor.	13.2	54.2
5. Attempt to apologise, admit fault, play down effects of invention.	11.7	55.4

Category	% of pupils	Mean score on test
6. Repetition of fact e.g. 'I have just invented a flying machine.'	8.5	52.7
7. Appeal to nationalism/patriotism.	4.0	58.9
8. Answers deriving from misreading of story or question.	1.7	53.6
9. Disingenuous answers e.g. 'I am ploughing the field.'	2.5	54.8
10. Random quotation from text.	0.5	49.2
11. Other.	1.4	50.9
12. Omissions.	4.0	48.5

Ex. 7 Two beautiful inventions feature in this story. What are they?

Markers were told: the correct answer would be 'The Emperor's mechanical garden' and 'the flying machine', or words to that effect.

% correct 84
% omitted 2

Ex. 8 What do the two objects have in common, apart from their beauty?

1. They are both valuable. (9)
2. They are both magical. (11)
3. They are both powered by the wind or sun. (5) % correct 67
4. They are both inventions of great ingenuity. (67) % omitted 1
5. They are both still made in China. (7)

Ex. 9 What is the most important difference between the two objects?

1. One has been made by the Emperor, the other by a common man. (9)
2. One is only a clever toy, while the other might influence the future of China. (69)
3. One is dangerous to those who fly in it, the other quite safe. (8) % correct 69
4. One takes great courage to use, the other does not. (8) % omitted 2
5. One is musical, the other is quite silent. (4)

Ex. 10

Why, at the end of the story, does the Emperor turn to his miniature garden for comfort?

Markers were told that an acceptable answer would point out that the mechanical garden represents China as the Emperor wishes to keep it, when he would not be faced with the sort of decision that he has just had to make. Also considered acceptable were answers pointing out the irony of the situation, e.g. 'That's what the world looks like when you are flying', or 'only the birds can fly now'.

% correct 33

% omitted 6

Analysis of responses:

Category	% of pupils	Mean score on test
1. Question interpreted to mean 'why did the Emperor need comfort'.	29.6	55.6
2. Question interpreted to mean, 'Why is the garden comforting', i.e. What qualities make it so.	22.6	54.9
3. More complex answers pointing out connection/analogy between the machine and the country.	22.3	57.8
4. Answers deriving from interpretation of story in terms of jealousy, i.e. stress ownership, possessiveness	8.3	54.8
5. Statement/repetition of fact e.g. 'He turns to the garden', 'He says "Look at the birds"'.	2.0	53.6
6. Answers deriving from misinterpretation of story, usually, that the flyer is still alive.	1.7	51.3
7. Other.	7.1	52.8
8. Omissions.	6.4	52.8

Ex. 11

In what way is the flying man very much like some real scientists and inventors who lived in later centuries?

Markers were told that an acceptable answer would point out that later scientists created inventions, processes and machines without thought for their applications, that later scientists also suffered the censorship of their inventions, that the inventor was a pioneer, or that he shared certain qualities of dedication (heroism, perseverance etc) with later scientists.

% correct 81

% omitted 9

Analysis of responses:

Category	% of pupils	Mean score on test
1. Emphasis on personal qualities of scientist: perseverance, courage, dedication, etc.	29.3	55.0
2. The flyer perceived only the beneficial effects of the invention — not the more far reaching implications.	18.5	58.4
3. The inventor was a pioneer, proved the impossible, broke new ground, etc.	13.6	54.0
4. He suffered censorship of his invention (by the state) and suffered personally for it.	11.4	58.0
5. Later inventors built flying machines.	8.1	53.0
6. Other.	10.2	53.2
7. Omissions.	8.9	48.5

Ex. 12

Do you think the Emperor made a fair decision? Explain why, or why not.*Analysis of responses:*Reasons given for judging the Emperor's actions to be unfair.

Category	% of pupils main point	% of pupils supporting point	Mean score on test
1. The flyer's punishment was felt to be oversevere/cruel	13.5	9.9	54.6
2. General point about the inadvisability or impossibility of stopping progress	6.0	3.3	56.9
3. More specific point: the Emperor's attempt to suppress all knowledge of the invention was bound to fail.	5.1	2.4	58.4
4. The Emperor acted without consideration; the flyer had no chance to put his side of the case.	5.1	2.2	53.6
5. The man was unaware of committing a crime; his motives were good.	4.7	2.9	55.6

6. The harmlessness/familiarity of the machine was emphasised.	4.7	1.2	52.9
7. The uniqueness and cleverness of the invention was emphasised.	4.3	2.1	54.0
8. The invention had the capacity to make the county great and prosperous.	3.5	1.7	54.3
9. Utility, ease of transport, improvement in the quality of life emphasised.	3.0	3.3	53.7
10. Potential as weapon stressed.	2.8	3.0	54.5
11. Logic of Emperor's argument questioned on specific points.	2.4	1.9	56.5
12. Arbitrary power of Emperor, his right to take decision, queried.	1.7	1.4	56.1
13. Beauty and aesthetic aspects of invention emphasised.	—	0.4	55.4

Reasons given for judging the Emperor's actions to be fair.

1. Military use to which the invention might be put, threat of war.	14.6	3.1	56.6
2. The Emperor had the right or responsibility to make the decision, or made it for altruistic reasons.	8.6	2.6	57.6
3. Maintenance of peace and stability is a legitimate aim of state.	3.6	2.3	58.4
4. Answers that echo the Emperor's point: one man's life weighed against millions.	3.4	1.6	59.3

3. The study of attitudes to reading

The survey

The attitude instruments

¹ *Language performance in schools. Secondary survey report No.1.* This report also contains a fuller discussion of the background to this attitude study and a definition of terms.

3.1 The previous secondary report¹ discussed in detail the existing methods for assessing attitudes stemming from the work of psychologists in attitude measurement and the approaches of previous surveys concerned with reading. It explained the rationale for the development of two attitude instruments: a series of statements, responses to which were of educational interest in their own right, although the ultimate intention was the development of a scale or scales; and an open-ended instrument, which would give pupils the opportunity to express opinions and feelings in their own words and with minimal interference from a test instrument. This initial report also stated that the feasibility of employing other instruments in the future was being investigated, in line with our intention to build up a battery of instruments of various approaches.

The survey questionnaire

3.2 Two pairs of questionnaires were used, each of which contained a dozen open-ended questions and sixty statements for pupils to respond to. Since it was crucial that pupils should answer as frankly as possible, the instructions both in the pupil questionnaires and to the teachers involved in the administration emphasised that pupils were being asked to give their personal views and the importance of truthful, thoughtful answers. These instructions are reproduced in Appendix 2.

The statements

3.3 The statements were selected to explore the same areas as those included in the 1979 secondary survey. The whole sample (approximately 1,000 pupils) responded to statements which referred to enjoyment of independent, extended reading; reluctance to read; motives for reading; and reading for true information. Half of the sample each responded to statements about reading aloud and school activities associated with reading. This reduction of sample size was made so that information might be obtained on both these areas while restricting each questionnaire to not more than sixty statements (to remain within the expected concentration span of pupils). The background to the selection of statements is described in Appendix 2.3.

3.4 In response to each statement, pupils chose one of five possible replies *YES*, *yes*, *not sure*, *no*, *NO*. (This use of a five-point scale in the 1980 survey, as opposed to the *Yes/No* scale used in 1979, is explained in relation to the development of attitude scales in Appendix 2.3). To avoid unnecessary complexity, however, responses to statements are reported in terms of total proportions of pupils in agreement or disagreement, and all figures giving proportions of pupils' responses have been rounded to the nearest whole percentage in the text. Appendix 2 contains the complete data on responses to these statements and those of the previous APU survey with which comparison is made. At this stage, the only variable against which these findings are reported is that of sex.

3.5 The provisional findings on the attitude scales being developed are also reported in Appendix 2. These data are reported against two variables: sex and reading performance scores.

Open-ended questions

3.6 These questions were chosen to provide descriptive information about the reasons underlying the attitudes that pupils revealed in response to the first section of the questionnaire. For the purpose of this report, a selection has been made from the questions available. Four questions here reported took the form of a restatement of opinions with which the pupil had been asked to agree or disagree in the questionnaire:

I prefer reading aloud to reading silently to myself.

I prefer watching television to reading books.

I would rather read a comic or magazine than read a book.

I would miss our school library if we didn't have one.

Pupils were asked to explain the reasons for their answers as fully as possible. Further open-ended questions reported relate to pupils' favourite book or author, favourite magazine or newspaper and their voluntary reading in the previous month. Half the sample answered each of these open-ended questions.

3.7 It should be noted that pupils were not limited as to the number of points they made when answering these open-ended questions. Any particular pupil may therefore be included more than once in the reported data since, where more than one point was made, each was categorized under the relevant heading. Accordingly, the total number of responses for any open-ended stem may be greater than 100 per cent. (A fuller discussion of the nature of open-ended responses and their analysis is to be found in the report of the 1979 secondary survey.¹) Quotations from pupils' responses are given in this chapter; where necessary, the spelling has been adapted to conform to convention. All figures giving proportions of pupils' responses have been rounded to the nearest whole percentage.

¹ paragraphs 3.24 and 3.25

Pupils' perceptions of themselves in relation to the activity of reading aloud

Preference for reading aloud

3.8 Four statements described a preference for reading aloud or silent, independent reading. Approximately one in ten pupils stated a preference for reading aloud: 10 per cent rejected the statement *I like reading to myself better than reading aloud*, while 12 per cent, 10 per cent and 9 per cent, respectively, agreed with the following views: *I like reading best when I am reading aloud to somebody*, *I prefer reading aloud to reading silently to myself*, *I prefer reading aloud around in a group to reading by myself*. A similar proportion of pupils in the 1979 secondary survey expressed the same preference, as can be seen from the full data presented in Appendix 2. In contrast, over four out of five pupils in both surveys preferred to read silently and independently.

3.9 It was hypothesised, in the previous secondary report, that preference for an oral group reading activity could be seen as an indication of a pupil's lack of independence with regard to reading. This hypothesis seems to gain support from pupils' answers to a question where half the sample were asked to give reasons for their response to the statement *I prefer reading aloud to reading silently to myself*. Of the 10 per cent of pupils who endorsed this viewpoint, the reasons of the majority focussed on greater enjoyment because of the stimulus of an audience.

They said that the audience provided an incentive to concentrate and so helped to maintain interest and even generate involvement in what was being read. These pupils explained that in independent reading their minds wandered, and so they 'got lost' and consequently became bored. The other major effect of an audience which was frequently mentioned was based on pupils' perceptions of their accuracy whilst reading. These pupils felt that reading aloud forced them to read more carefully, and so they missed out fewer words or jumped fewer lines. In addition, they valued immediate feedback from a teacher as they read. The following quotations are characteristic of the responses of these pupils:

"... I prefer reading aloud because when you are reading a story quietly you fall asleep. But when you read aloud your mind works all the time to make sure you don't say anything wrong."

"... because if I am reading it to myself I tend to rush and miss out words and I soon get bored, but if I read aloud I can't miss words out or else it sounds strange and I also get involved in the story."

"... I prefer to read aloud than to read to myself because you are corrected when you make a mistake and you skip over some lines when you read to yourself, but when you read aloud you seem to get more interested."

"... when I read to myself I get bored and stop but when I am reading in the class I enjoy it and you can't stop because people are waiting for you to read your bit."

"... for if I come across a lot of big words the teacher can help you and explain to you. You can understand it better when you read aloud for you do not lose the place as easy and can concentrate better on it."

3.10 In contrast, the majority of pupils who preferred silent, independent reading complained that reading aloud caused deterioration in the quality of their understanding, and consequently of their response. According to these pupils, reading aloud imposed limits on the depth of their concentration, since they had to retain awareness of their audience and so try to avoid pronunciation errors and monitor factors such as the volume and pace of their reading. Some pupils also explained that their efforts to put in expression to keep their audience interested were a further hindrance to their own personal grasp of the complexities of what they were reading. As a result, as one pupil expressed it, "it doesn't go in properly". Pupils complained that apparent understanding as implied in a coherent reading aloud was of such superficiality that they always had to go back and re-read what they had read aloud, in order both to understand it at the level they were capable of and to remember it. Consequently, since pupils saw reading aloud as preventing the reflection and digestion necessary as they read, they believed that it hindered involvement, and that the quality of their personal response suffered:

"... I also find that I cannot concentrate on the meaning of the words or the extract as a whole if I read it aloud. I need to think about it and picture it and often read it several times at my leisure."

"... I seem to get more involved when reading silently and enjoy the story better. Reading aloud seems to let the outside world into your own story when you would much rather have privacy."

3.11 The other reasons for disliking reading aloud which were also described included embarrassment, fear of making mistakes, and the difference in pace in contrast with silent, independent reading. The following quotations illustrate the points made by pupils who became embarrassed when asked to read aloud. This embarrassment was frequently connected with anxiety about errors:

"... I don't like reading out aloud in class because there may be some words that I cannot pronounce and I will stutter and be embarrassed."

"... I like reading to myself because when you read to all the class you feel frightened and so you get a lot of mistakes."

"... it makes me very nervous and if you make a mistake they laugh at you."

"... well you get mixed up and you feel shy and you can't seem to read that good and everybody is staring at you when you make a mistake."

With regard to pace, the prevalent complaint was the slowness necessary for the audience to follow in contrast with the fluency enjoyed in silent reading:

"... when I read aloud it is too slow. I read very fast silently to myself and it becomes fascinating. If I do not get on quickly as happens when I read aloud, it is not because I stumble when I read aloud, it is just time-consuming to have to speak each written word."

Only a few pupils referred to self-consciousness about their slowness in reading aloud because of reading difficulties. Further points to do with pace included comments on the advantage of silent reading because pupils could choose their own pace, vary it as they wanted, re-read and, of course, themselves control the length of time spent on reading.

3.12 As is evident from all of the above responses, reading aloud was clearly not perceived by these 15 year old pupils in terms of dramatic reading prepared in advance. Instead, it was seen as an activity which was frequently treated as a substitute for independent reading and which demanded the immediate and coherent reading aloud of something previously unknown. This usage evidently resulted in the majority of pupils disliking the activity, either for the personal exposure involved or for the detrimental effect it was seen to have on the achievement of the purpose underlying the reading.

Reading aloud *per se*

3.13 Pupils were also asked to respond to the non-comparative statement *I like it when it is my turn to read aloud*. Over two-thirds of the sample (68 per cent) denied this. In addition, various statements explored possible reasons for this dislike of reading aloud, such as were volunteered in response to the open question discussed above: exactly half of the sample admitted to anxiety about making mistakes in public (*I don't like reading aloud because I worry about the mistakes I'll probably make*), while two-fifths of the pupils (41 per cent) became embarrassed when asked to read aloud (*I get embarrassed if I have to read something out loud*). The statement *When I'm reading aloud I read too slowly* was also included in this secondary survey as a possible reason for disliking the activity of reading aloud (although it was recognized that agreement with this statement could stem either from a pupil's recognition of his own hesitancy in this situation or from frustration at the comparative slowness of reading aloud as opposed to the speed, flexibility and greater

involvement allowed by silent, independent reading). A quarter of the sample (24 per cent) agreed with this statement.

3.14 As was also the case in the previous secondary survey, no significant differences¹ between the responses of boys and girls emerged in connection with any of the statements about attitudes to reading aloud. All the statements reported above comprise the scale that has been developed on attitude towards reading aloud, the initial findings of which are described in detail in Appendix 2.2.

¹ Any difference reported as 'significant' in this chapter is statistically significant at the 5 per cent level or above, ie there is a 1 in 20 probability that the difference is due to chance.

Pupils' perceptions of themselves in relation to independent reading

3.15 Pupils' responses to statements relating to the following issues will be reported in this section: enjoyment of sustained, independent reading; motives for reading; and reluctance to read. In addition, responses to open-ended questions on voluntary reading in the month preceding the survey and comparative attitudes towards reading and watching television will be described. Initial findings with regard to the attitude scales that have been developed on pleasure in independent, extended reading, reluctance towards extended reading and reading for self-improvement are reported in detail in Appendix 2.2.

Enjoyment of sustained, independent reading

3.16 A similar proportion to that found in the 1979 secondary survey endorsed a general statement expressing pleasure in the activity of reading (80 per cent of pupils agreed *I enjoy reading*). A further statement which referred more specifically to reading at home (*I like reading at home*) was also endorsed by four out of five pupils. However, more specific statements implying enjoyment either of a continuous engagement in voluntary reading or sustained, independent reading were agreed with by significantly fewer pupils: 59 per cent agreed both with the statement *I like always to have a book to read at home* and the statement *I like going off and reading silently by myself*. A similar proportion (61 per cent) endorsed a statement which described an attitude of anticipation and intention with regard to future reading *There are a lot of books I want to read*. Furthermore, statements describing a long duration of reading and perseverance were endorsed by even smaller proportions of pupils: 46 per cent and 24 per cent of the sample, respectively, agreed *I like reading by myself for hours* and *I like to read long, thick books*. It is notable that significantly more girls than boys responded positively to each of the above statements.

Motives for reading *Reading for relaxation*

3.17 The significant difference noted above between the responses of boys and girls was also evident in relation to further statements which described reading for relaxation. Accordingly, 82 per cent of the girls (67 per cent of the boys) agreed *Reading helps me to relax*; 73 per cent of the girls (57 per cent of the boys) agreed *Reading takes my mind off other things*; and 55 per cent of the girls (35 per cent of the boys) agreed *When I am bored I usually amuse myself by reading*. Two other statements described a means by which this relaxation might be obtained: involvement and identification with what is read. 77 per cent and 52 per cent of the girls, respectively, endorsed the statements *I get involved in what I'm reading* and *I like reading because I can feel myself in the writer's or character's position* (as opposed to 60 per cent and 34 per cent of the boys).

Reading for self-improvement

3.18 No significant sex differences were apparent in responses to the majority of statements which suggested more pragmatic reasons for reading (related to schoolwork, development of language skills and future job prospects). When responses to this group of statements are considered in terms of total response, it is evident that approximately four out of five pupils agreed that their reading aided the development of their language skills. Accordingly, 87 per cent endorsed *Through reading I will learn to read better*, 80 per cent, *Reading helps me to learn new words that I do not already know*, 78 per cent, *Through reading I will be helped to express myself better, in writing*, and 77 per cent, *Reading helps me with my spelling*. The exception to this pattern of response occurs in relation to the statement *I want to read well so that I can read harder books*. Only half of the sample (51 per cent) endorsed this motive. (The explanation for this exception may lie in the reference to reading 'harder' books or perhaps in the possible interpretation that the aspiration to 'read well' belongs to the future, rather than being an existing capability.)

3.19 The statement which referred to a relationship between reading skills and future employment *I want to read well to help me to get a job* was endorsed by three out of five pupils (58 per cent). As has been stated, the response patterns of boys and girls were similar in relation to this motive for reading. Concerning motives to do with schoolwork, 77 per cent of pupils agreed *I want to read well to help my schoolwork*, although only 34 per cent were prepared to endorse the statement *I want to read to help me at school rather than to amuse myself*.

3.20 However, in relation to three of these statements, which described motives for reading to do with self-improvement, a significant sex difference was found. These motives were: reading to help schoolwork; reading to progress in difficulty of reading material; and reading to develop vocabulary. Significantly more girls than boys endorsed these statements (69 per cent of boys, 84 per cent of girls endorsed *I want to read well to help my schoolwork*; 45 per cent of boys, 57 per cent of girls endorsed *I want to read well so that I can read harder books*; 73 per cent of boys, 87 per cent of girls endorsed *Reading helps me to learn new words that I do not already know*).

Reluctance to read

3.21 A group of statements described reluctant or negative attitudes towards reading. The proportions of pupils in agreement with these reveal a pattern of response similar to that found in the 1979 secondary survey, as can be seen from the full data, which are presented in Appendix 2.

3.22 Proportions of pupils between a sixth and a quarter of the total sample endorsed the majority of these statements. Accordingly, 16 per cent of pupils agreed with a statement which implied avoidance of all but compulsory reading (*I only read what I have to*). Statements which expressed a very limited participation in voluntary reading (*Apart from schoolwork I only read if I want to find out something* and *I seldom see a book I want to read*) were endorsed by 22 per cent and 26 per cent of the sample, respectively.

3.23 Further statements explored what might lie behind reluctance to read. A fifth of the sample (22 per cent) admitted *I get bored reading silently to myself*, while 29 per cent agreed *I prefer to listen to something being read out to reading it myself*. Over a third of the sample (38 per cent) confessed that they felt that they were

slow readers (*It takes me a long time to read most books*). Statements which described considerations of difficulty were endorsed by about a quarter of pupils: 25 per cent and 31 per cent, respectively, agreed with the statements *I wish that books hadn't got such hard words in them* and *I wish that books were easier to understand*. However, only 12 per cent of pupils wanted books to have *less writing and more pictures*, although 49 per cent asserted a preference for *short books*.

3.24 A quarter of pupils admitted that they rarely read while at home (28 per cent of the sample endorsed the statement *I don't usually read at home*). An explanation given by pupils in initial pilot studies for lack of home reading was insufficient time and opportunity. Accordingly, the statement *My life outside school is too full for reading* was included in the survey. It was endorsed by 23 per cent of the pupils.

3.25 In response to all but three of the statements, describing negative or reluctant attitudes towards reading, a significantly higher proportion of boys than of girls expressed agreement. (The three statements in response to which no significant sex differences were apparent were those that related to a wish that books were easier to understand and contained less difficult vocabulary, and the statement *I don't usually read at home*.)

Voluntary reading in the month preceding the survey

3.26 In response to the open-ended stem *Which books have you read in the last 4 weeks apart from those connected with school?* the proportion of pupils who avoided voluntary reading emerges as similar to that reported in the preceding part of this chapter. Twenty-three per cent of pupils were unable to provide a title or description of any book read voluntarily in the period suggested (17 per cent of pupils specifically explained that they had read nothing and 6 per cent left this question blank while completing the rest of the questionnaire). The same question was asked of half the sample in the 1979 secondary survey; 28 per cent of pupils in that year were similarly unable to volunteer any reading undertaken voluntarily in the previous month.

Comparative attitudes towards reading and watching television

3.27 Pupils were also asked to respond to the statement *I prefer watching television to reading books*. 51 per cent of the pupils endorsed this view. (A quarter of the sample rejected it, while the remaining quarter chose not to commit themselves.) Significantly more of the boys than of the girls agreed with this sentiment. (Yes: boys 63 per cent, girls 40 per cent.) The open-ended section of the questionnaire for half of the sample included a question that asked pupils to give reasons for the response that they gave to this statement.

3.28 Of the pupils who stated a preference for television, a third appreciated the visual aspect of television. These pupils made reference both to the dramatisation of fiction and the presentation of information, and explained that they preferred not to have to use their own imaginations. They felt that being shown the sequence of what was happening and seeing things being demonstrated or acted made comprehension easier, and so they believed that they gained more from television than from reading.

3.29 One in five of pupils positively inclined to television described it as more exciting and interesting than reading: the omission of the potentially boring because of the prior selection required by the comparatively shorter length of television programmes was seen to result in a briefer, more fast-moving experience. In addition,

these pupils felt that what was included in a T.V. programme was presented in a more entertaining way than in books. A similar proportion of pupils pointed to the comparative simplicity and succinctness of a television programme, which had the advantages both of helping them to learn more clearly and more quickly than from reading, and of demanding less concentration. The general point that television was less demanding than reading was made by one in ten of television supporters ("... I don't have to make my own ideas, the T.V. puts it all across to me" "... it does not need as much concentration to watch the T.V." "... I can do anything while watching T.V. eat or drink or even do some work, but with reading you just have to read ...") A similar proportion made the point that television was more relaxing because of its fewer demands, and was consequently a suitable activity for after school or homework or "when I am mentally exhausted at the end of the day". The variety of programmes available on television, inherent in the programme arrangement and channel options, was also mentioned by a similar number of pupils.

3.30 Of those pupils who did not state a preference for television, one in five made a point antithetical to that provided by the largest number of television supporters. They preferred reading because it enabled them to imagine for themselves and get involved in their own personal response to what they were reading:

"... when you watch T.V. you have a moving picture to watch, but when you read a good book you can make up your own picture and develop your own imagination."

"... when I am reading I become more involved than with the T.V. with which you cannot imagine yourself as one of the characters. My assumptions about the character are marred by the person who plays it on the T.V."

One in six pupils approved of reading on the grounds that it was more educational than television. These pupils felt that more was learnt from reading, both in language skills that could be improved (such as spelling, vocabulary or punctuation) and through the detailed information available in books (which was also perceived as beneficial in the more complex thought processes that it demanded in comparison with a television presentation). A similar proportion preferred the individual pace of reading to the transient immediacy of television.

3.31 The pupils who refrained from committing themselves either way tended to make one of two points: either they distinguished between different purposes and outlined when reading or television might be more suitable (as for relaxation or for mental satisfaction), or they perceived common uses for both activities and selected according to the specific situation. Some pupils did sum up their rationale for choosing on a particular occasion in terms of 'it depends on what's on T.V.'.

Pupils' preferences with regard to content and type of reading material

3.32 Pupils' responses to statements relating to attitudes to different types of reading matter will be reported below, together with responses to open-ended questions about pupils' favourite authors, and the reading of comics, magazines and newspapers.

Fiction

3.33 A similar proportion of the sample to that found in last year's secondary survey expressed a liking for reading fiction: 75 per cent of pupils endorsed *I like reading fiction*. As was also evident last year, significantly more girls than boys agreed with this sentiment.

3.34 The romantic novel was the only type of fiction specified separately amongst the statements. Twelve per cent of boys agreed *I like reading love stories*, in comparison with 73 per cent of girls.

Favourite book or author

3.35 In the open-ended section of the questionnaire, pupils in half of the sample were asked to name their favourite book or author, and to explain the reasons underlying their choice. 65 per cent of these pupils gave an author or work of fiction, while 7 per cent referred to non-fiction. A quarter of the pupils elected not to give an answer (a similar proportion of pupils to that unable to provide the name of any book read in the month prior to the survey, as reported in paragraph 3.26).

3.36 The following five authors were each picked by at least 3 per cent of the sample: Enid Blyton, Agatha Christie, Catherine Cookson, James Herbert, James Herriot. (The reasons given by pupils for choosing these five authors will be outlined below.) Two per cent of the sample referred to J. R. Tolkien (*The lord of the rings*), and to John Wyndham (*The chrysalids*, *The day of the triffids*, *The Midwich cuckoos*), while 1 per cent mentioned Peter Benchley (*Jaws*), Charles Dickens (*Oliver Twist*, *A tale of two cities*), Gerald Durrell (*My family and other animals*), Sven Hassel (*March battalion*, *Wheels of terror*), Alistair Maclean (*Guns of Navarone*), George Orwell (*Animal farm*, 1984), and Wilbur Smith (*The diamond hunter*).¹

3.37 Proponents of Enid Blyton enjoyed the opportunity to share in the adventures and excitement of the plots. Although half of these pupils were explicitly making reference back to favourite books of their childhood (no one author had apparently since been discovered to take the place of Enid Blyton in their affections), the comments of the remaining pupils implied that they were describing current reading. An awareness that the plots were not realistic was admitted by a couple of pupils ("... they are a bit exaggerated, the stories, but they are still enjoyable" "... not always true to life ...").

3.38 Whereas these supporters of Enid Blyton evidently liked happy endings, for Agatha Christie's proponents, an unexpected ending was fundamental to enjoyment, as was the apparent verisimilitude with which the intricacies of plot unfolded as suspicions passed from one character to the next. The way in which suspense was maintained was noted with relish. Pupils also liked the variety of types of action found in these books ("... a mixture of mystery, romance, horror ..."). With regard to style, the clarity of Agatha Christie's writing was described with approval ("... I like her style of writing as it is not complicated and she uses simple vocabulary and I do not need someone to explain her stories to me ...").

3.39 Readers of Catherine Cookson also appreciated the ease with which they could understand her writing ("... easy to read without being simple ...") and felt that this quality, together with the apparent realism of her plots ("... most of her stories may not be true, but they seem real ...") increased their involvement in her books and their identification with the characters. These pupils, too, selected variety of mood and type of action ("... love, violence, happiness, sadness ...")

¹ The titles in brackets show which books were specifically mentioned in pupils' answers.

as a characteristic that they approved of. In addition, vividness of description was mentioned particularly in connection with Catherine Cookson's books ("... she describes the characters, their emotions and their surroundings so vividly that I get a clear picture in my mind ...").

3.40 James Herbert's books were praised for very similar general characteristics: ease of understanding; maintenance of interest through pace and action; apparent credibility; vivid description; and variety of emotions and events. In addition, the distinctive quality of his writing in comparison with the three authors previously discussed was clearly relished ("... I like being terrified, horrified and repulsed by books" "... James Herbert writes horror stories which are also fast moving. His vivid description of macabre things makes me imagine them very clearly" "... a lot of violence and blood in it ...").

3.41 In contrast, the pupils who chose James Herriot as their favourite author appreciated the subtler variety of emotions evoked in witnessing 'the trials and tribulations' of the hero in addition to the prevailing comic mood. Several pupils noted that the characteristic of the humour was that it stemmed from true situations ("... true to life, but extremely funny, with witty remarks all over the place" "... combine somehow humour and facts" "... true facts but they have a funny side to them ..."), and for many of them much of their enjoyment came from the vividly described society and atmosphere of the Dales and the factual veterinary information ("... brings the feel of the country into me" "... when you read his books you can really feel the Yorkshire Dales, the tough, vicious work, the understanding of the Dales people" "... he tells a great deal of facts surrounding nature, animals. He also gives very good descriptions of landscape, and portrays very good characters ...").

Poetry

3.42 A third of the sample endorsed the statement *I like reading poems*. Significantly more girls than boys were positively inclined to poetry. The findings that two-fifths of the girls in comparison with a quarter of the boys enjoyed poetry reading, are almost identical to those of the 1979 secondary survey. No significant sex difference was apparent, however, when pupils were asked to choose between poetry and fiction: 83 per cent, both of boys and of girls, endorsed *I would rather read stories than poems*.

3.43 The 1979 secondary report contains a detailed description of 15 year old pupils' attitudes to poetry reading (both that undertaken at school and voluntarily at home) and a further elaboration of this issue has not therefore been included in this current report.

Comics and magazines

3.44 No significant difference was found between the sexes in relation to attitudes to comic reading: 58 per cent of the sample disagreed with the statement *I prefer reading comic books and annuals to other sorts of books*. When reference was made to magazines as well as to comics and implied home reading behaviour rather than just preference, half of the sample (49 per cent) rejected the statement *I read comics and magazines at home more than I read books*. (Again, the responses of boys and of girls were similar.) As was noted in the report on the 1979 secondary survey (where a similar proportion of pupils rejected this description of their reading habits), the range of content, purpose and difficulty encompassed by the terms 'comics and

magazines' is considerable. It was accordingly suggested in the 1979 report that this finding should be interpreted in terms of the difference in format between books and comics and magazines (the one consisting principally of extended reading material, the others, characteristically, of extracts and illustration). In this 1980 survey, to provide an indication of the qualities that pupils associated with the different forms of reading, half the sample were asked to explain the reasons underlying their preference for books or for comics and magazines. These reasons are outlined below.

Preference for comics and magazines

3.45 A predominant reason why pupils preferred this type of reading matter to books was, in fact, the format ("... books are on one topic. They describe it or tell a story about it until the end" "... a comic or magazine is a lot shorter than a book. There are usually several short stories, whereas a book is one long one and often takes a lot of getting into" "... more variety of things to read" "... not so many pages, not so many words ..."). The illustrations in comics were also appreciated in providing a ready-made explanation of the text ("... comics have pictures which helps to understand the reading more" "... there is more of a picture when you read a comic of what the thing is about, but with a story you have got to build a picture up yourself in your head and sometimes you cannot ..."). Books were criticised by these pupils for the effort demanded and comparative difficulty experienced in understanding because of the lack of supportive illustration and the amount of detail extraneous to the gist of the plot ("... I usually lack the willpower, and occasionally the time, to read a long book" "... Books are too long-winded and contain too much irrelevant, descriptive material" "... Books usually do not hold my attention for more than half a book, and also I usually do not have the time to read a book" "... comics and magazines show a brief outline of the situation and spend more time on the actual story ...").

Preference for books

3.46 On the other hand, pupils who stated a preference for books stressed their enjoyment of extended reading which demanded concentration and involvement. They perceived the relatively greater detail of most books as providing greater possibilities for development — of plot, of suspense, of character and of emotions. The quotations that follow illustrate the points made by such pupils:

"... in books the story is longer and usually more interesting because there are more details in them."

"... books become increasingly more interesting as you read deeper into them. They are something to look forward to."

"... once you have found an interesting book you know that it will stay on the same theme throughout."

"... a book can hold your attention longer, it makes you feel 'there' and involved and you don't want to put it down."

"... in a comic you just glance through but you have to take your time and study a book."

"... I found with a book such as *Lord of the rings* I felt I was in the middle of it — it gave sensations of terror, joy and others. I can't imagine a magazine being the subject of such feelings."

There was also a prevalent opinion that books were more worthwhile (in their content and its effect on understanding) and it was suggested that the expression might provide a model ("... they stretch your outlook on life" "... more depth and meaning" "... it relaxes me, stimulates my imagination, helps me to write better and helps my vocabulary ..."). Several pupils noted that the fact that a book had an individual author whose purpose was to communicate his personal view made books more stimulating to read.

Magazine and newspaper reading

3.47 In addition, pupils in half of the sample were asked the following questions:

List below the names of any magazines or newspapers which you would recommend to someone of your own age because you yourself enjoy them.

Now try to explain which parts of the magazines or newspapers you think this student would enjoy, and why.

Four out of five pupils recommended magazines from their personal experience; half of the sample recommended at least one newspaper.

Magazines

3.48 The magazines recommended were classified according to type of content: factual, or a mixture of fiction and fact. Each type of publication was referred to by over half the sample. However, whereas 95 per cent of the boys mentioned factual magazines, only 31 per cent of the girls did so. In contrast, 12 per cent of boys referred to magazines with a mixed type of content, in comparison with 90 per cent of the girls.

Factual magazines

Boys

¹The proportions described in the following paragraphs relate to those pupils who recommended a magazine in response to the question under discussion.

3.49 Publications about pop music and motor cycle and car magazines were each recommended by more than one out of every five boys.¹ About one in ten referred to football magazines; one in twenty to fishing publications; while the remaining recommendations from boys ranged across a diversity of hobbies and interests (including photography, hi-fi, shooting, electronics, model-making, and current affairs magazines).

Girls

3.50 For girls, the most popular magazines were to do with pop music (one in ten girls mentioned these), while publications on domestic issues (such as furnishings, gardens, entertaining, dressmaking) and on horses were each referred to by approximately one in twenty girls. As with the boys' recommendations, the remaining suggestions made by girls indicated a range of individual interests; they included science, history, geography, biology, and current affairs magazines and publications on hobbies such as stamp-collecting, photography and bird-watching.

Magazines which include a mixture of fiction and fact

3.51 As has been stated, this type of publication was principally mentioned by girls. *Jackie* emerged as the most popular magazine (recommended by two out of every five girls.) Other magazines popular with girls included *My guy* (recommended by one in three girls), and *Blue jeans*, *Oh boy*, *Patches* and *Photolove* (each mentioned by more than one in every six girls). While all these publications had at least one boy in the sample amongst their readership, magazines such as *Look-in*, *Weekend*, *Punch* and *The reader's digest* were those principally referred to by the small number of boys in the sample who recommended this mixed type of publication (a

similar proportion of girls also mentioned these particular magazines). Otherwise, publications such as *Titbits* and *Playboy* were referred to by individual boys.

Newspapers

¹ The proportions described in this paragraph relate to those pupils who recommended a national newspaper in response to the question under discussion.

3.52 The majority of the pupils who recommended a newspaper were referring to the national press. The most popular daily newspapers were *The Sun* and *The Daily Mirror* (each mentioned by approximately one in three pupils),¹ while *The Daily Mail*, *The Daily Star* and *The Daily Express* were each referred to by approximately three in every twenty pupils. *The Guardian*, *The Telegraph* and *The Times* were mentioned by one in ten pupils or fewer.

Pupils' reasons for their recommendations

Magazines

3.53 Pupils' choices of specific factual publications were naturally based on individual interest in the particular subject matter. With regard to magazines with a mixed content of fact and fiction, the predominant reason given for liking these publications related to the information relevant to their present problems and future lives that pupils thought that they contained. Accordingly, the problem pages, readers' letters and true experience features were recommended ("... learn from readers' mistakes" "... helps us with our problems, now or in later life" "... helps young people" "... if they are too embarrassed to talk to someone privately" "... problems you/she might have suffered" "... understanding it better ..."), together with factual features related to fashion, cookery, health and beauty. Although the fictional component was frequently referred to as a reason for recommending a certain publication, the form it took was seldom discussed in detail. The few more detailed explanations given by pupils did seem to imply that the stories were often approached as information in fictional form, enabling either identification or projection into as yet unexperienced situations.

Newspapers

3.54 The main criteria put forward by newspaper readers focussed on the entertainment value of certain papers and the ease with which they could be read. Few pupils seemed aware that different newspapers might represent different stances, and that they might therefore be read critically or used to stimulate thought. Instead, what was called 'enjoyable, simple news', told from a 'human viewpoint' was appreciated by the majority, in conjunction with light features such as horoscopes, 'page 3', jokes, competitions and letter pages. Sport appeared to be the principal area in which accuracy of information was required.

Non-fiction

3.55 A variety of statements concerned with reading for information was included in the questionnaire answered by the whole sample, to explore pupils' relative tastes for factual or fictional reading, and to investigate any differences between the sexes in this respect. The initial findings about the scale that has been developed relating to preference for factual reading are reported in Appendix 2.2.

3.56 Although 52 per cent of the sample stated that they liked reading non-fiction, only 29 per cent said that they preferred non-fiction to fiction. A significant difference between the responses of boys and girls was found in relation to preference for non-fictional reading, but not in relation to the non-comparative statement *I like reading non-fiction*. (35 per cent of boys endorsed *I prefer reading non-fiction to fiction*, in comparison with 23 per cent of girls).

3.57 The statement *I like to read to increase my knowledge*, which implied the use of reading generally (either of fiction or non-fiction) to gain information, was endorsed by 68 per cent of the sample, with a similar proportion of boys and of girls. Significant sex differences were evident, however, in relation to statements which specified more precisely the kind of knowledge meant. Thus, significantly more boys endorsed statements where the knowledge referred to was implicitly factual, and was directly related to the individual's hobbies or concerns; significantly more girls endorsed statements relating to the development both of understanding generally and, particularly, of human behaviour (which could stem from fictional or non-fictional sources).

3.58 Accordingly, 73 per cent of boys (49 per cent of girls) agreed *I like to read to learn how things work or how to do things*; 74 per cent of boys (51 per cent of girls) agreed *When I read by myself it is usually to learn about things that interest me*; 56 per cent of boys (40 per cent of girls) agreed *I prefer books which give accurate facts*; and 48 per cent of boys (19 per cent of girls) agreed *I prefer reading about my hobbies to reading fiction*.

3.59 In contrast, 70 per cent of girls endorsed *I like to read to develop my ideas and opinions* (in comparison with 58 per cent of boys); 61 per cent of girls endorsed *I like to read to learn about people* (in comparison with 46 per cent of boys); and 58 per cent of girls endorsed *I like to read to help me to understand my own and other people's personal problems* (in comparison with 30 per cent of boys).

3.60 This pattern of sex differences in response to statements concerned with these issues is similar to that which was apparent in the 1979 secondary survey. There is also a clear connection between these findings and those discussed previously concerning the type of magazine which the majority of pupils of each sex recommended.

Pupils' perceptions of themselves in relation to activities associated with reading in school

3.61 A number of statements, identical to those responded to in the 1979 secondary survey, referred to oral and written activities linked in school with reading novels, and distinguished between increased *understanding* through these activities and increased *enjoyment*. The same general picture emerged in both surveys: significantly more pupils considered that their understanding of the books studied in school was improved through such activities than thought that their pleasure in them was increased; and significantly more pupils felt that discussion benefited both understanding and enjoyment than thought that making notes on a novel concurrently with their reading or writing about it afterwards did so. Accordingly, four-fifths of the sample in this 1980 survey agreed that *Talking about a novel in class helps me to understand it better*, in comparison with just under two-fifths of the pupils who felt that either writing about a novel or making notes on it helped them in this respect. Likewise, while just under a quarter of pupils admitted that either of these written activities added to their enjoyment, just over half the sample agreed that *Talking about a novel in class helps me to enjoy it more*. The trend noted in the 1979 secondary report that girls were more positively inclined than boys towards these activities was still evident in responses in this 1980 survey.

3.62 Pupils were also asked to respond to two more general statements which related to enjoyment: *Studying novels and plays in English helps me to enjoy reading more* and *I enjoy reading other books like the books we read in class in English*. Both these statements were endorsed by two-fifths of the sample, and in both cases, just under half of the girls in the sample were in agreement, as opposed to under a third of the boys. Of the remaining pupils, two-fifths (approximately half of the boys, one-third of the girls) rejected the viewpoint expressed in these statements and one-fifth refrained from deciding one way or the other.

3.63 The statements described above form the scale that has been developed relating to attitude to school activities associated with reading, the initial findings of which are described in detail in Appendix 2.2.

Library use

3.64 Exactly half of the sample endorsed the statement *I enjoy using a library to find things out*. This represents a significantly lower proportion of pupils than endorsed the same statement in the previous secondary survey, when 63 per cent of the sample responded positively to this statement of attitude. In addition, in this survey the significant difference between boys and girls in relation to this topic, which had been evident in 1979 at the same age, was no longer apparent. Sixty-nine per cent of the sample agreed with the less specific statement *I like using books to find things out*.

3.65 It was decided to include a further question on library usage in the light of the findings of the 1979 secondary survey that fewer than one in ten pupils chose their school or a library when asked to complete the stem: *The place I like to be when I am reading is . . .* Accordingly, pupils in half of the sample were asked to respond to the statement *I would miss our school library if we didn't have one*, and to give reasons for their response. 59 per cent of these pupils replied negatively, while 40 per cent described why they valued the use of a school library. The reasons underlying both types of replies are outlined below.

3.66 Two-thirds of the pupils who denied the sentiment expressed in this statement declared that they never (or extremely rarely) used their school library. The majority of these pupils clearly did not perceive that they had any need to use the school library regularly or voluntarily, while the rest interpreted their lack of use of the library in terms of lack of opportunity. The occasional visits made to the library by the first group of pupils were explained by compulsory attendance because of teacher absence or free lessons, to teacher-directed tasks for a specific project or a place to do homework. On the other hand, the second (smaller) group of these pupils, who made comments such as 'not long enough in there', 'no lessons in there', 'only one day a week', did seem to point to a genuine problem. The repeated complaint 'only at lunchtime' clearly prevented school library use for pupils who went home to lunch or engaged in other school dinner-time activities. The following quotations are representative of the responses made by these two groups of pupils (who, for whatever reason, rarely used their school library, and represented about 40 per cent of the total sample):

" . . . I have not taken a book out since I've been here."

" . . . I don't often use it, and then, usually, only when I've been sent there."

"... I only use it, once a fortnight, to find a suitable picture to draw for English or art."

"... have only used it a few times as a place to do my homework. I have only taken a book out once or twice."

"... I have had school library sessions about 3 times."

"... now, unlike a few years ago, you don't get a chance to use it."

3.67 Over a quarter of the pupils who did not feel that they would miss their school library criticised the range of books in this library as limited or irrelevant. Specific complaints related to the out-dated content and dilapidated appearance of the books concerned ("... dated and in bad condition"). Many of these pupils complained that the 15 to 16 year old was not catered for, except in terms of examination/curriculum-related material. They could find little relevant to their interests to read voluntarily — or, as one pupil put it, for 'ordinary, everyday life':

"... the school library has books for the younger school, for children of 10 to 12 years old. But the senior library caters only for the 17, 18 age group with a more serious, more demanding type of literature."

"... only a small amount of readable material for 16 year olds."

"... insufficient fiction or up-to-date material to interest me."

"... it never seems to have the books I want, the books have "that school smell and feel to them". I don't associate school with leisure and so I never seem to enjoy school library books."

"... a low standard of books on the subjects I like — they are mainly applicable to projects etc."

"... It contains many academic books which I find uninteresting. Reading is a hobby not an academic subject to me."

3.68 Two-fifths of these pupils who professed no commitment to their school library did describe alternative sources of acquiring books, and of these sources, the public library was by far the most frequently mentioned. (Of the total number of pupils who replied negatively to the statement under discussion, one in three referred to the alternative use of a public library; one in ten described their home as their source of reading material; one in twenty said that they bought what books they needed; and one in thirty borrowed books from friends, relatives or teachers.) The school library was contrasted with the facilities of the public library in terms both of quantity of books available, and their quality.

3.69 Of those pupils who thought that they would miss their school library if they didn't have one, over a quarter referred generally to the library as a reference source. It was implicit in these responses that the information to be found out was principally factual, the source being encyclopaedias, dictionaries and non-fiction, rather than the less tangible development of understanding acquired through the reading of fiction. In addition, nearly half of the pupils who responded positively to this statement made mention of their use of the library for schoolwork, particularly homework or projects ("... I often go in and use the reference books to look up

facts that I should use in an essay" "...for looking up homework questions" "...useful for quick facts for schoolwork" "...can use as reference for schoolwork e.g. information on famous people"). If these two types of responses, the library as a reference source and as an aid for schoolwork, are included together (avoiding the double inclusion of any pupil who made both points), three-quarters of those pupils who were positively inclined towards their school library seemed to value it as a reference source for specific, limited information. In contrast, under one in twenty of positively disposed pupils referred explicitly to borrowing fiction.

3.70 Three in twenty of pupils who valued their school library stated their appreciation of the range of books to which they had access through their particular schools, while almost one in four commented on the benefit experienced from being allowed to take books home, whether fiction or non-fiction. A similar proportion noted the convenience of the school library, in the lack of time and effort needed to get there in contrast to their public library. (A few pupils appeared to be free to visit their particular school library whenever they needed, and approved of the advantage of this.) Likewise, one in four pupils valued the quiet atmosphere of their school library, so that they could "*work or read without being disturbed*". There were two references to the help given by a school librarian as a reason why the school library would be missed. The other reasons given by these pupils related to appreciation of the fact that there was a school library system at all, since the alternative of having to purchase books or do without was recognised.

The study of attitudes to reading: a summary statement

3.71 The activity of reading aloud was not perceived by 15 year olds in terms of prepared or dramatic reading, but as something usually treated as an alternative to silent reading for the same purposes. Pupils' answers indicated that this usage presented many disadvantages to the majority of readers. One in ten pupils expressed a preference for reading aloud, rather than silent, independent reading (this proportion is the same as emerged in the previous APU secondary survey). Pupils' reasons for such a preference suggest that this attitude provides an indication of their lack of independence with regard to reading.

3.72 Four out of five pupils were prepared to commit themselves to a general enjoyment of independent reading, although the proportions in agreement dropped significantly when long periods of sustained reading were suggested. As in the 1979 secondary survey, significantly more girls than boys endorsed all statements referring to pleasure in reading, while the converse was true in relation to statements expressing reluctant or negative attitudes towards reading. Of the total sample, proportions between a sixth and a quarter agreed with these reluctant or negative opinions. Consistent with these findings, approximately three-quarters of the sample was able to provide a title or description of a book read voluntarily in the month preceding the survey.

3.73 Half of the sample admitted to preferring to watch television to reading, while slightly fewer pupils revealed that they read comics and magazines at home more than books. Although significantly more boys expressed a preference for television, no difference between boys and girls was found in relation to preference for comics

and magazines. Advocates of television principally liked the clarity and succinctness of a television presentation, which was seen to demand less concentration than reading a book, and no imagination. Proponents of comics and magazines likewise stressed the relative ease of understanding experienced, and appreciated the variety and brevity of the individual units of reading in such publications, in comparison with the sustained concentration and involvement required to read most books. The titles of pupils' favourite magazines and newspapers were reported.

3.74 With regard to content and type of other forms of reading matter, three-quarters of the sample expressed a liking for fiction, half of the sample for non-fiction, and a third for poetry. The most popular fiction authors were reported. Their popularity principally stemmed from the qualities that they were perceived to have: the ease with which they could be understood; credibility; vividness of description; variety of mood or action; and fast pace of plot. Significantly more boys than girls preferred non-fiction to fiction, and were keen to increase their knowledge in areas directly related to practical interests. In contrast, significantly more girls endorsed statements relating to the development of understanding of human behaviour and of ideas and opinions generally.

3.75 In respect of activities associated with reading in school, a similar picture emerged to that found in the 1979 secondary survey: talking about books studied was more popular than writing or making notes on such books, and more pupils felt that such activities furthered understanding than thought that they added to enjoyment. Two out of five pupils endorsed the suggestion that books so studied might provide an introduction to further books for voluntary reading, and the same proportion agreed that such study increased the enjoyment they experienced in reading.

3.76 Concerning library usage, two out of five pupils expressed appreciation of school library facilities. However, the majority of these pupils used these facilities as a reference source for specific, limited information. There were few responses which implied that the school library provided a source from which books were selected for extended personal reading. The pupils who expressed no regret at the prospect of losing their school library justified their attitude on the following grounds: a lack of inclination or stimulus to make use of it; a lack of time; reservations about the relevance of the books available; and use of alternative sources, such as the public library.

3.77 Initial findings on the attitude scales under development are reported in Appendix 2. Significant differences between the responses of boys and girls were evident in relation to the scales relating to pleasure in independent, extended reading; reluctance towards extended reading; reading for self-improvement; preference for factual reading; and attitude to school activities associated with reading. In addition, the correlations obtained between reading performance scores and scale scores were particularly interesting in relation to the two scales which refer to reluctance to read extensively and pleasure in independent extended reading.

4. The assessment of writing

The scope of the assessment framework

4.1 The aims of the writing survey are consonant with the thinking underlying the overall survey of language performance: namely that, in the tests produced, pupils should be encouraged to use language in ways which are intrinsically meaningful and which serve some purpose. In the case of written language assessment, the functional perspective of the survey has led to the development of writing tasks which have a definable purpose, which allow for the creation of different types of readership and which encourage the use of a variety of written forms.

4.2 Previous reports have outlined the processes by which assessment measures were developed, both in conjunction with the APU Language Steering Group and with teacher liaison groups meeting in different parts of the country. The Steering Group was instrumental in drawing up specific guidelines for the assessment of writing; these formed a working basis for the formulation of particular writing tasks.

4.3 In order to provide a necessary context for the reporting of the results of this survey, the initial proposals for areas of assessment of writing at secondary level are repeated below:

- 1 Personal response to pictures, music, short quotations from poems or prose, or similar stimuli
- 2 An autobiographical narrative or anecdote, in which the pupil is able to reflect upon the experience recounted
- 3 A fictional story
- 4 An objective description or account of a process which the pupil can write from the confidence of personal authority
- 5 Discussion of an issue of the pupil's own choosing, in which he or she is required to present a point of view and persuade the reader to share it
- 6 An account of how a problem is to be solved or a task to be performed, sometimes with the additional requirement of producing notes or a flowchart from which the account is then developed
- 7 Discussion of an issue for which the pupil has himself to produce data and evidence, explore the various arguments, and present his own conclusions
- 8 Discussion of an issue for which evidence and data are provided and the pupil is required to take account of opposing viewpoints.

4.4 A period of pre-testing in collaboration with teacher groups led to the subdivision of some of these proposals, while additional suggestions were made as to the potential variation in form between the types of writing indicated above. The pre-test trials were intended to define the purposes for which a pupil might write in

any of the above ways, the nature of his or her formal control over the final product, and the range of readers envisaged as most appropriate for the writing.

4.5 In deciding which specific tasks a pupil would be asked to write on, a number of factors were kept in mind: comparability of results, assessment across an educationally meaningful range of tasks, and ease of administration in schools. A series of ten writing booklets was designed, each booklet including four parts: a short writing task common to all booklets, one of ten different longer writing tasks, a text-based exercise such as editing or note making, and a final section comprising several short questions about pupils' attitudes to writing. Booklets were distributed in such a way that each school received only booklets of the same number.

**Writing tasks employed
in the secondary survey
1980**

4.6 The following informal designation of writing functions relates to the tasks used in the survey. Pupils were asked to produce writing relating to three of the following activities, one of which (the explanation of a complex skill) was common to all booklets.

General purpose of writing	Written outcome or product
1. To explain	a) explanation and justification of convention or regulation b) explanation of a complex skill.
2. To record/report	a) an account of something learned b) report of events seen.
3. To describe	description based on personal knowledge.
4. To narrate	a) short story b) autobiographical anecdote.
5. To plan	account of an activity to be undertaken.
6. To request	letter of application.
7. To express feelings	response to a satirical article.
8. To persuade	argument justifying a (controversial) point of view.
9. <u>Text-based work</u> To edit	editing of a selection of written texts.

As indicated above, the range of readers suggested for these tasks varied, as did the autonomy given to the writer to determine the form the writing could take.

4.7 It should perhaps be emphasised that this survey is the second in a sequence of five to be conducted annually. However, the same materials are not used five times over. The long-term programme of monitoring makes it essential to have a test design which will allow the replacement or introduction of some materials; also, the practice of 'releasing' materials in the process of reporting necessitates flexibility in the test design. The list of writing tasks given above, therefore, is not intended to be definitive, either of the number of tasks to be developed or of the pedagogical importance attached to any one category of written discourse.

The context of writing assessment

4.8 It is perhaps important to reiterate that the administration of the APU writing survey differs in some respects from what one might traditionally understand as a 'test situation'. Class and subject teachers are encouraged, by means of a set of accompanying notes, to introduce the writing tasks before the group of pupils begins writing, and to allow for some exploratory discussion within the group about an approach to the tasks.

4.9 The team is, of course, aware that however satisfactorily pupils write under these conditions, they are still writing 'on demand' and within time constraints. Most of the writing that they will do as adults will likewise be bound by such conditions; it could be argued that assessment based on work so produced is a direct reflection of real-world demands, when writing is produced because of external requirements more often than from self-sustaining interests or impulses. However, in the view of the Language Steering Group, it was important to give recognition to the full variety of writing activities which are not all amenable to assessment in the course of formal surveys, however sensitively these are administered. To this end, it was originally proposed that monitoring might include the collection of work produced in normal classroom conditions, which could not be simulated on demand. For example, some of the writing which pupils carry out in schools in different subject areas arises from collaborative activities which cannot be predicted or planned in advance. Project work requires resources and time; journal writing is likewise an extended, if sporadic activity; other types of writing also depend on a variety of starting points: outside interviews, visits, television viewing or the close observation of classroom 'realia'.

4.10 As a result of work carried out with teacher liaison groups on the feasibility of a work sampling approach, two pilot surveys have been mounted (one for each age group). On each occasion, schools were asked to provide work produced by randomly selected pupils. Different criteria for selection were tested in each pilot survey; information about the origin of each piece of writing selected was entered on a 'context questionnaire' which had been drafted with a liaison group of secondary teachers. Pupils involved in these pilot studies were asked to complete one of the APU writing tasks in order to provide a measure of comparison.

4.11 On the basis of the results of both these pilot studies, the APU has accepted the recommendations made by the team and the Steering Group that a work sampling component be introduced in the 1982 secondary survey. A sub-sample of pupils only will be involved.

Pupils' perceptions of writing tasks

4.12 Just as in the survey of reading performance, it was thought desirable to include a component which would provide more information on children's long term interests and preferences in reading, and on their attitudes towards a range of freely selected reading activities, so too in the assessment of writing performance, the team has begun work on the nature of pupils' attitudes to writing. Both 11 and 15 year olds completing the writing booklets have been asked general questions about their likes and dislikes within the booklets themselves, and about preferred writing at school or at home.

4.13 A classification of such replies has led to the development of more pointed questions exploring the way in which writing is valued or used by individual pupils, the perceived areas of difficulty in writing, and the relationship writing is felt to

have with other forms of language use. Pupils' statements about writing elicited in the course of the writing surveys have also been used as the basis of pilot questionnaires on attitudes to writing. Given that repeated evidence has emerged from the surveys about differences between the writing performance of boys and girls it was thought that information as to the ways in which these groups characteristically think about writing might further illuminate the results.

Methods of assessment

General considerations

4.14 The ability to write, although dependent on separable skills, consists not merely of the mastery of techniques (such as spelling, sentence division or punctuation), but of their incorporation into a complex of cognitive and social abilities. Because writing is not simply a hierarchy of skills, but one of the means by which we make sense of the world and communicate it to others, the assessment of children's writing needs to go beyond a consideration of basic skills; the ability to organise thought, to control the expression of feeling or to sustain a viewpoint for a particular readership are aspects of writing which assessment cannot afford to overlook. Just as it was thought important not to design tests that divorced skills from meaning, so it was essential to devise methods of assessment which would adequately reflect the complex nature of linguistic abilities.

¹ The report on the 1979 primary survey contains a selective review of systems of marking of this type which were used in the United Kingdom from the 1930s onward. Previous reports have also detailed the evolution of the marking schemes employed by the APU language team.

² See Chapter 6

4.15 From the outset, it was decided to use complementary systems of marking:¹ impression marking, which involves a rapid reading of each script and the awarding of a single mark, and analytic marking, for which scripts are read in relation to discrete categories. The focus of the marker's attention is, of course, very different in these two systems of marking. An impression marker is expected to make a judgement about the quality of a script in simultaneous response to all aspects of the writing; questions about how far the pupil 'has answered the question', or how well he or she has controlled particular conventions of the written language are subordinate to the overall effect conveyed by the writing. The reliability of pooled assessments received from impression marking has been demonstrated by studies conducted by the Schools Council and the Examining Boards; this, combined with the rapidity of the system, makes impression marking the most viable one for dealing with the amount of data gathered in the course of a survey (approximately 4,000 booklets, each containing two substantial pieces of written work). The scores computed from impression marking are the ones referred to in the reporting of writing performance against background variables, such as sex and region.²

4.16 For more precise information about the characteristics of performance on particular writing tasks, another marking scheme needs to be employed. Analytic marking procedures, which entail a close and detailed reading of scripts, can provide at the least a three-fold assessment: firstly, of the content of what is written; secondly, of the way in which it is written; and thirdly, of the extent of a writer's mastery of the conventions of written language. Sub-divisions within these broad areas of concern can render the marking scheme more flexible to the assessment of different writing tasks, while still reflecting a view of essay writing coherent enough to facilitate agreement among writers.

4.17 In the analytic marking scheme employed by the language team, five components of writing performance are focussed upon. The *content* and *organisation* of what a pupil says with respect to a specific topic or issue are assessed; consideration is also given to the *appropriateness and style* of the writing, taking account of the general purpose of the writer and the suggested reader(s). In order to evaluate a pupil's use of written language conventions, two further categories were defined: *knowledge of grammatical conventions* (relating to the overall grammatical coherence of the text) and *knowledge of orthographic conventions* (concerned with word-internal features such as spelling, capitalisation and non-grammatical punctuation).

4.18 Since it is not practicable to mark all scripts analytically, a random 10 per cent sub-sample is assessed in this way in the course of each survey. Further details about the scope of the analytic criteria are given in the following discussion. As readers of the first secondary survey report will be aware, this is repeated information. The marking schemes employed in the first survey will continue to be used throughout the series of five, but in order that each report contains sufficient explanatory detail for the discussion of results to be meaningful, a synopsis of marking procedures will be included each time.

**The administration of
the marking schemes:
impression marking**

4.19 The panel of markers recruited from among experienced secondary teachers was re-convened for the 1980 survey. Forty markers participated in the first stage of assessment, in which they were asked to form a rapid impression of each pupil's writing performance on the evidence of the writing tasks in parts one and two of the booklets. Marks were awarded on a 1–7 scale. A score of 1 corresponded with the marker's judgement that the pupil was an extremely poor writer for a 15 year old, and a mark of 7 denoted that a writer was considered to be extremely good for this age group.

4.20 Each script was read by two markers. The design adopted in assigning scripts to markers was the simplest one that would allow for all markers to be linked on a common scale which reflected their relative leniency and stringency. The scripts were assembled into eighty sets and each marker dealt with four sets of scripts. After an initial training session, based on the results of a trial marking exercise, two sets of scripts were marked. These were then returned and each set assigned to a different marker in the panel for double marking.

4.21 It is sometimes found that impression marking methods are liable to seize on superficial or discrete points and to weight these out of all proportion to general qualities that characterise the essay as a whole. Accordingly, correlations have been computed between data relating to each of the analytic criteria and the impression marking scores. This has demonstrated that impression marks tend to correlate most highly with analytic marks relating to *content and organisation*, though there are significant positive correlations with marks derived from the other main categories used in analytic marking.¹ The two marking systems yield evidence that is complementary, but not statistically equivalent.

4.22 As one measure used to check markers' consistency over time, an annual re-marking procedure has been devised whereby all members mark a 'calibration' set of essays in addition to the scripts from any one survey. Provision has also been made for more extensive re-marking to be carried out at the end of the five year

¹ See Appendix 4

span to investigate the nature of marker behaviour over time. An analysis of marker consistency will accordingly be included in the final report, when all the data are to hand.

4.23 With regard to the relative difficulty of different tasks, the results of the previous survey indicated that, in some measure, judgements of the pupils' writing performance were dependent on the task undertaken (although the extent of variation in marks that could be related to task differences was minor compared to that accounted for by differences between pupils). As anticipated, the results also confirmed that some individual markers were inclined to award higher or lower marks than the majority.

4.24 Subsequently, a number of analyses were carried out on the data obtained from impression marking in the first secondary survey in order to establish that an estimate of pupil performance could be made, irrespective of the task undertaken or of the marker actually marking the script. The analyses took account of three sets of parameters:¹ firstly, the relative leniency/stringency of the marker; secondly the difficulty level of each task, and thirdly, the writing performance of the pupil — the latter being the main focus of the enquiry. Similar methods of analysis were used to derive performance measures for this survey.

¹For a full discussion of the statistical model employed, the reader is referred to the technical supplement on the analysis of APU monitoring in language.

Analytic marking: the scope of the criteria

4.25 In the second stage of assessment, a random sample of 10 per cent of the essays was selected across the complete range of booklets for analytic marking. As for impression marking, booklets were arranged in sets and each marker dealt with a total of four sets. Analytic marking likewise began with a pre-marking exercise and an intensive training session at the NFER.

4.26 A panel of four markers (drawn from a pool of six) assessed pupils on an ascending scale of 1–5 with reference to the following set of criteria:

1. Content
2. Organisation
3. Appropriateness and style
4. Knowledge of grammatical conventions
5. Knowledge of orthographic conventions

Judgements relating to the first two of these categories referred to the entire essay; for appropriateness and style and knowledge of grammatical conventions, markers were referred to the first twenty lines of writing; in assessing orthography, the first ten lines of essays were taken account of. The following notes provide a brief account of the detailed instructions given to markers.

Content

4.27 Judgements relating to this category deal with the subject matter of the written work. Such judgements are topic related and take account of any instructions given about the purpose of the writing or suggested reader(s). The amount and type of detail given on a particular subject often relates to assumptions about a reader's knowledge, and varies according to whether source material is provided or has to be created. In the first secondary report, for example, three tasks were discussed which varied greatly in terms of demands of content: a formal letter of application, a

persuasive argument and the explanation of a complex skill. It was found that the problem of selecting content that was both relevant and substantial was more acutely focussed in the case of the letter and the argument than was the case with some other tasks. In the following discussion, tasks are likewise exemplified for which the criteria for the selection of content differ.

4.28 Markers were instructed to assign a mark of 5 to essays in which the content was, in their view, entirely adequate and to a degree original. Essays which were wholly inadequate in content (in terms of the task undertaken) were to be given a mark of 1.

Organisation

4.29 This category relates to the manner in which what is said in the essay as a whole is ordered or sequenced. As with judgements about content, markers were asked to take account of the fact that pupils would tend to organise their writing in different ways according to the various tasks. Again, referring to the analysis of writing performance in the previous secondary report, it was noted that the types of sequencing entailed in giving explanatory instructions differed from those employed in organising a letter in answer to an advertisement; in the context of this report, the different organisational strategies used in writing a children's story, and in giving an account of recent learning are also examined.

4.30 Markers were instructed to give a grade of 5 to essays in which the organisation of material was, in their view, entirely coherent and suited to the content of the piece. Essays which were incoherent in structure and which provided no evidence of an attempt to organise the material were given a grade of 1.

Appropriateness and style

4.31 The term "style" is used in many different ways. In this case, it is used to refer to the writer's choice and purposeful use of vocabulary and sentence structure, with regard to subject matter, reader(s) and purpose, insofar as these can be determined. The writer's knowledge of rhetorical conventions associated with certain forms of writing, as in letter writing, for example, is also taken account of in relation to this set of criteria. Markers' judgements about style are therefore topic-related, and part of the initial briefing session is accordingly devoted to a review of the range of formal characteristics associated with the scripts on each writing topic. Plainly, the criteria used for judging the stylistic effectiveness of an official application written to a stranger will differ from those used in assessing an informal account of recent experience intended for a circle of friends.

4.32 General points of stylistic difficulty which might be noted concern repetition or redundancy in the use of sentence types, sentence connectors or subject nouns. In some contexts, colloquialisms traceable to the spoken language may be considered inappropriate; in others, the use of formal or literary phrases may be equally inappropriate. For a more detailed exemplification of the scope of the stylistic criteria, the reader is referred to later parts of this chapter.

4.33 Markers were asked to give a mark of 5 to writing in which the choice and ordering of the wording were appropriate to the subject matter and reader(s), and which gave evidence of the fact that the pupil was able to write in such a way as to achieve consciously effects such as economy of style, if this was appropriate in the

context. By contrast, essays which contained a high proportion of stylistic errors in the first twenty lines of text and which, in effect, failed to take any account of the need(s) of the reader(s) or the interrelation between content and style, were given a grade of 1.

Knowledge of grammatical conventions in written English

4.34 The criteria for assessing knowledge of grammatical conventions, and knowledge of orthographic conventions, relate to the organisation of the written language generally. In written English, there are a number of conventions observed by proficient writers which reflect, in particular, the need to represent unambiguously both clause relations and boundaries, and the relation of components within them. In speech, these relations are indicated in part by patterns of intonation; in writing, they are often indicated by marks of punctuation. Markers were asked to note omissions of punctuation marks where such omission left the grammatical relationship between two or more clauses or sentences unclear or ambiguous. The grammatical relationship between parts of a sentence may also be misinterpreted if commas are omitted or wrongly placed around phrases in apposition, in a succession of nouns or adjectives, or between clauses and phrases. It is frequently the case that younger writers insert a comma rather than a full stop or semi-colon, for example, between sentences which are semantically linked. While such usage does not necessarily lead to misunderstanding, markers were asked to take note of it as evidence that a grammatical boundary was insufficiently defined. The following excerpt is fairly typical of writing which omits grammatical punctuation, but which is readable in other respects:

The

way Food is packed is also of great interest as it means things can last for longer and can be used on long journeys and as I am doing the Duke of Edinburgh the Food I carry must be able to last for atleast five days with out going bad.

4.35 Other common grammatical errors result from a lack of cohesion or relatedness between different parts of a sentence or between successive clauses. In this connection, markers were asked to note problems that pupils had in maintaining tense sequence in adjacent clauses, or difficulties in maintaining grammatical 'agreement' between components of a sentence, where this was required. The excerpt below

illustrates both problems in maintaining tense sequence and a lack of grammatical punctuation:

But what people eat to day
is about 4 times as what they
had eaten in 1 one day and once
they asked what is for dinner and
the reply is potatoes they start to
noan.

4.36 Markers were asked not to record as grammatical errors the use of grammatical features that are characteristic of regional variants of standard English, or the use of colloquial expressions, or of slang. If such usage was judged to be inappropriate in a particular context, it was taken account of in relation to the category of style, as was the inappropriate use of non-standard forms such as 'I done it'.

4.37 Essays that contain no grammatical errors were given a mark of 5. Writing in which none of the sentences in the first twenty lines was grammatical in the sense defined above was given a mark of 1.

Orthographic conventions

4.38 In assigning a mark in relation to this category, markers were asked to take account of pupils' knowledge of conventions of spelling and word division; the appropriate use of upper and lower case letters and conventions relating to capitalisation; and the occurrence of errors in the use of punctuation marks that did not result in grammatical error as defined above. For example, speech marks alone are often sufficient to indicate a grammatical boundary, without the addition of a full stop. Similarly, a word-initial capital letter can also serve to signal a sentence break, despite the absence of punctuation marks.

4.39 A mark of 5 was given to essays which showed a complete mastery of orthographic conventions. Writing in which none of the sentences in the first ten lines could be fully deciphered on first reading because of departures from orthographic conventions (and not simply because of the type of handwriting used) was given a mark of 1.

The final stages of writing assessment

4.40 After pupils' writing had been marked analytically, all scripts relating to the topics to be discussed in the report were re-read with a view to obtaining more understanding of the problems that pupils had encountered in carrying out the tasks set, as well as further insight into the nature of achievement among pupils in the sample. This close reading of the scripts did not lead to the production of an additional set of ratings, but supplied the information needed for the qualitative interpretation of pupils' performance. This interpretation is reflected in the following commentary on some of the tasks included in the 1980 survey.

Illustrated discussion of pupils' writing performance

Introduction

4.41 This commentary on pupils' writing performance falls into three sections, two of which analyse the results on extended writing tasks, while the third comments briefly on results from an editing task. The two extended writing tasks chosen for commentary are a form of report writing (the pupils were asked to give an account of three interesting things they had learned recently), and a short story written for 4 to 5 year olds. The editing task discussed, though similar to one reported in the first secondary survey report, this time had the added component of pupils' comments on the type of alterations they thought most essential to the given text.

4.42 Whereas in the previous report, the selection of writing tasks analysed was addressed to a public or formal audience, the two reported here are not comparable in terms of intended readership. The context in which the short report was set, was to give an account of school-based learning in order to introduce an incoming teacher, or school visitor, to the interests of a particular group of pupils. The reader, though not 'remote' or unfamiliar, was conceived of as an adult, in contrast to the young child for whom the short story was to be written.

4.43 The second basic respect in which the two tasks differed was in terms of their structure as written texts. Pupils writing the children's story clearly found it useful to draw on existing story types or frames, adopting conventions of beginnings and endings, plot sequences, characters and stylistic features from a variety of literary sources. Pupils writing the short report however, had no such literary modes to draw upon; the selection of subject matter and ways of orientating the text to the reader were both entirely individual matters. The analytic markers commented that this was perhaps a type of writing unlikely to have been frequently practised (in comparison with stories, letters or 'essays').

4.44 Accordingly the criteria for 'stylistic effectiveness' on the report writing task had more than usually to be generated by each individual writer. The analytic marks reflect the fact that more pupils had problems with this aspect of the task than was the case when the results of the story task were considered (15 per cent completing the report achieved full marks for style in comparison with 30 per cent on the story). Conversely, the analytic marks for *content* were higher on the report task than on the story, a reflection in part of the greater originality shown in choice of subject matter (the proportion of pupils scoring full marks for *content* on the report and story tasks were 44.6 per cent as against 23.8 per cent respectively). In the category of *knowledge of grammatical conventions*, pupils writing the short report also tended to score more highly than those writing the story, with almost 50 per cent scoring full marks in this category in comparison with around 25 per cent on the story writing task.

4.45 The features of performance indicated by distinctions such as those noted in the spread of analytic marks, form the basis of the following commentary; none of these distinctions could be discerned from the spread of impression marks. The distribution of raw scores from impression marking for these two tasks are given in the following table.

Table 1 *Distribution of impression marks for the report and story tasks: raw scores*

Proportion of pupils ¹ (n = 429)	Rating Scale						
	1	2	3	4	5	6	7
Report	2.0	7.3	16.3	28.0	22.3	16.3	6.9
Story	3.1	5.0	14.9	26.9	23.8	15.4	9.3

¹ This table excludes a figure of 1.0 per cent and 1.5 per cent respectively of pupils who did not attempt either task.

Results of a report writing task

4.46 The topic for writing was presented to pupils as follows:

Think of the three most interesting things you have learned during the last two weeks. They might be things you have read about or seen or that you have been taught.

The three interesting things could all be from the same subject or from different subjects. Explain why you found them to be interesting.

As indicated earlier, the context for the writing was that of providing information for an adult new to the school; the teachers' notes gave details about the type of readership to be envisaged.

4.47 The interests reported as arising from recent school work were many. By far the largest group of topics reported discussed the learning of new facts or theories about the world (its geography, its history — political and social, its physical or chemical make-up), plus topics in human biology ("all this sort of thing interests me because it delves more deeply into what actually happens inside you and how you look like you do"). As sources of interest, these subject areas appeared to have more potency than the recently acquired knowledge of how to do or make something, or interests arising from the reading of fiction. Given that the topic specifically focussed upon school work, it was not to be expected that many pupils would refer to interests outside school. Where they did so, it was to recount interesting information gained from watching documentary-type television programmes (for example, the *Strangeways* series on prisons, an anti-smoking programme, coverage of the 1979 Presidential election, and a film based on the life of Oppenheimer). A similarly small number of pupils drew upon immediate personal experience, writing about recent insights into problems such as loneliness or a sense of personal danger.

4.48 Most pupils were able to instance three areas of interest, and go some way towards giving reasons for their selection. There was no requirement for each topic to be linked to the succeeding one, and only a minority of scripts began with a general introduction to the three topics about to follow. What was more important in terms of style was to make it clear to the reader where the discussion of one topic ended and the next began. A characteristic of low performance on this task was the single paragraph containing all three subjects, merging one with another.

In the last two weeks I
~~learned~~ ~~the~~ went to the R.A.F.
 for information and I learned a
 lot from going. like the pay
 the age the training the signing
 years and reserved, and what I
 have to do to get the job.
 and I have learned about
 the Coil in physics because I
 have always wanted to know
 it. I was intresting to know
 all the different trades off
 all discibson in engeneering and
 other trades.

The above script was rated as 2 in impression marking.

4.49 Generally speaking, pupils opted for the technique of achieving visual separation between parts of their report by leaving a line between paragraphs. Some used underlined headings, numbers or letters as a further demarcation between points, although, as noted elsewhere in this report (see Chapter 2) and in previous discussions of 15 year olds' writing, the confident use of numbered points in note-form was not widespread. Here, for instance, is an example of a script in which the layout and content of the text are not related in a constructive way.

History

We learnt that poor people suffered
 very painfully towards illnesses in
 the 1800's because they couldn't
 afford to pay for surgery

Common Diseases in the 1800's
 Still born - caused by the mother
 working too hard whilst pregnant
 Typhoid Fever - Drinking polluted water

The poor were cramped by having
 five family's into one house as
 they couldn't afford anything better
 One family lived in each room and
 one lived in the cellar This caused
 disease to spread very quickly
 The part of ~~the~~^a town around a
 the factory's are called 'The Slums'
 Rich People lived farer out into
 the country The farer out the
 richer they were The rich and
 the poor mixed very rarely.

This script was rated 3 in impression marking.

4.50 The above excerpt also illustrates a way of writing about school subjects which remains within the confines of reproducing knowledge about the subject. No attempt is made to explain the subject of interest in such a way as to engage another person's interest.

4.51 A failure to highlight the items of content which accounted for the writer's own interest in a subject produced writing which seemed to be slanted more towards imaginary essay topics than addressed to a reader who was not synonymous with the teacher-examiner figure. One such 'essay' began as follows:

"Today the price of fuel has increased dramatically. Oil during the sixties was supposed 'plentyful', now at the beginning of the eighties the price of

petrol has almost doubled. It is the same with every other form of energy. Coal, gas, electricity are all now very expensive. Power stations powered by coal, gas or oil are by some estimations to close down by the year 2000.¹

¹ Throughout this chapter, where scripts are given in typed versions no points of discussion hinge upon their handwritten presentation.

The topic of fuel shortage and its various solutions continued to be documented in a rather academic vein without the writer seeming to be aware of the need to convey his personal interest in the topic chosen.

4.52 As an indication that it was not the intractability of subject matter *per se* that made for difficulties in fulfilling the basic requirement of orientation to reader, the following excerpt is quoted. This writer chose to communicate his interest in the difficult topic of relativistic field equations, managing to introduce the relevant theory and explain the nature of his interest in it simultaneously:

"Another fascinating fact that I read recently is of the possibility of faster-than-light particles, or tachyons.

Albert Einstein's theory of Special Relativity states that it is impossible for any object having finite mass, to reach or exceed the speed of light, relative to an outside observer.

This is because, amongst other factors, as an object approaches light speed its mass increases so that at the speed of light it would have infinite mass. Therefore, to reach the speed of light would require infinite power, a clear impossibility.

The relativistic field equations also show that a particle having no "proper" mass (the mass that it would have if it was at rest) must travel at the speed of light. Such particles are called Luxons and include photons (light particles) and neutrinos.

But special relativity also shows that a particle could exceed light speed, relative to an observer. But to do so the field equation would involve the square root of minus one. In effect the particle would have less than no mass.

This seems ridiculous but one can conceive a universe of particles that are incapable of decelerating to the speed of light. Such a concept has been used to good effect by many science fiction and fantasy writers."

In large measures, this piece owes its success to the stylistic precision with which the explanation is sequenced ("This is because, amongst other factors . . . Therefore . . . also . . . such . . . But . . . but . . . in effect"), and to the overview of the subject presented by the writer himself ("This seems ridiculous but . . ."), another way of establishing common ground with his reader.

4.53 More typical of writing which succeeded in describing some area of interest, but which was less adept at achieving variation within an explanatory style, were scripts in which one piece of information was added to another without overall integration of each one into the next. Repetition of sentence types and of key words and phrases was noted by analytic markers as a pervasive stylistic weakness characteristic of middle of the range performance, as illustrated by the following example:

As we were learning about the "Agricultural Revolution", I found out that inventions were very important. For example Jethro Tull's seed drill. This was a great invention in its time. It was made of wood and was drawn by horses. It had lots of advantages. One of these advantages was that it planted the seed or grain in straight rows which was much easier when it came to weeding as a horse drawn hoe could weed between the rows. It was also a much quicker method than sowing seed by hand called "broadcasting" or sowing them with a sickle. One great advantage of Tull's new invention was that it covered up the seed as it planted them in neat rows. This meant that birds could not just swoop down and pick up the seed. This meant that more seed were planted so in turn this meant that the farmer got more grain when he reaped his harvest again the next year.

4.54 In contrast to the account of relativistic field equations, the piece discussing Jethro Tull's seed drill uses very few cohesive devices. The constant use of sentences beginning "It was/It had . . ." or "One was", "This meant", makes for a quite accurate listing of features of the invention, but, as a whole, the writing still appears more geared towards the conveying of facts than to accounting for a particular personal interest.

4.55 In previous reports, it was noted that a low incidence of grammatical errors tends to co-occur with writing tasks which allow for the use of simple declarative sentences, or the use of note-form, in which full sentences are not required (a formal letter was the example discussed in the 1979 secondary language report). As can be seen from the quotations from pupils' work on this topic, simple sentence types were commonly employed, with a minimum of interconnecting material, thus lessening the chance of grammatical errors arising from more complicated usage. However, it has also been suggested that this reliance on one or two basic sentence types was not necessarily the most appropriate choice in terms of stylistic interest nor, indeed, equally appropriate for all types of subject matter.

4.56 Scripts which were rated in the highest categories in impression marking all demonstrated considerable ability to move between details of the subject matter chosen and the writer's interest in it. Although, as stated earlier, there was no necessary requirement for each of the three topics to be linked, a change of writing style with successive subjects could make for some unevenness when reading a complete report. This was especially the case when writers moved from one topic in which the interest was implied in a description of the content itself, to another where the focus was more upon the speculative curiosity aroused by a new area of learning. Two sections from a report rated highly in impression marking are quoted as illustrations of disparate styles within one piece:

Example 1

"One thing that I found interesting in the last two weeks are some baby gerbils which I have. I have two female gerbils and a male one, and a couple of weeks back one produced some babies. I love all animals and so I was extremely pleased when this event happened. The mother gave birth to four babies originally, but unfortunately one of them got eaten by the male so the cage had to be separated. It is very pleasing to see the babies growing up. Firstly they grow fur after about a week. When born, of course, they are very tiny (about 2 cm in length) but even so they squeak extremely loudly.

After about 3 weeks they begin to venture out of the nest but have not opened their eyes yet. The mother will carry them back to the nest if she sees one go out. The next stage is to open their eyes which is delightful. They have tiny black, shiny eyes and which gives them an even more adorable appearance than before. They then begin to eat grain and hard food instead of feeding from the mother, and their growth is extremely rapid. Within 3 months they are fully mature."

Example 2

"Another thing I have found extremely interesting, although quite difficult, in the past two weeks has been biology. We started off doing genetics which is rather confusing at first but easy once you have got the hang of it. I find this interesting because you learn all about why people look like they do and how

this comes about, and you can apply the knowledge to yourself and family, i.e. why you take after your parents, and you can also work out what the offspring of animals would look like if two certain types produced offspring. All this sort of thing interests me because it delves more deeply into what actually happens inside you and how you look like you do.

After this subject we started doing all about muscles and bones in the body which is interesting for the same reason and which is easy to understand because you are a living example for yourself so you can see more clearly where the certain bones are and why they are there etc."

4.57 Whereas the first section, on gerbils, achieves a coherence by tracing through a chronological cycle of birth and growth (and in doing so, goes beyond the specified 'two weeks'), the second section, on biology, contains thoughts that seem to be striving for shape in writing for the first time. It is noticeable that at the very point at which the writer tries to make articulate her sudden perception of the way biological knowledge is exemplified in her own body, the grammatical coherence of the prose begins to disintegrate.

4.58 Impression markers tended not to concur in awarding scripts of this type the highest marks; their uncertainty was often pinpointed by the analytic markers' decision to give less than full marks in the category of style. In this respect, the script quoted above, despite its individual distinctions, is also a reminder of writing problems noted elsewhere in the sample.

Results of a story writing task

4.59 The topic for writing was presented to pupils as follows:

Write a story which would be suitable for reading aloud to a 4 or 5 year old child.

429 pupils completed this task.

4.60 When compared with other writing tasks used in the 1980 secondary survey, this one proved to have been one of the two best managed in terms of the analytic criteria for *appropriateness and style*. In fact, all pupils whose work was marked analytically received a mark of 3 or above in this category, thus indicating a comparatively high degree of success in terms of variety and purposefulness of language, with regard to the writer's subject matter, readership and intention. One-third of analytically marked scripts were rated 5 in the category of style, twice as many as was the average over all tasks.

4.61 A close reading of the scripts on this topic revealed that most 15 year olds were able to meet the stylistic requirements of writing for a 4 or 5 year old child. As will be discussed in detail below, one factor in this success appeared traceable to the use of various story frames familiar from literature associated with pre-school children. Most stories were long and fluently written; in contrast to several other writing tasks used in the survey, a short piece of writing was more frequently a sign of low performance.

4.62 One of the most striking features of success on this topic (signified by the figures for *appropriateness and style*) related to the pervasive ability of 15 year olds

to construct a children's story. Although there was, of course, a degree of interpenetration or overlay of elements deriving from distinctive types of children's literature, it was possible to define four major story types. These could be classified as descriptive diary type episodes based on one character's activities; stories of adventure based in contemporary settings; fairy tales; and stories which seemed to draw on 'nurseryland' fiction (the woodland/farmyard scenarios made popular by Enid Blyton).

4.63 However, when considered in terms of knowledge of grammatical conventions, it was also apparent that features common to narrative writing in general were less ably managed. The raw scores for knowledge of grammatical conventions indicated that over twice as many pupils writing on this topic received the second lowest rating of 2 compared with the marks over all the tasks.

4.64 A particular difficulty appeared to relate to run-on sentences without grammatical division. As noted in previous reports, narrative writing is one of the contexts in which the problem of disambiguating connected portions of written text appears to arise most acutely. The story-writer frequently has a psychologically coherent 'plot' to relate which seems resistant to punctuation, whether this be to mark anticipated sentence boundaries or to distinguish direct speech.¹

4.65 The following extracts from a story entitled *The city underground* is cited as illustrating writing which was rated as 2 in the category of knowledge of grammatical conventions (as should be evident from the extract, the story is not similarly faulty in terms of content, organisation or style):

Once upon a time Here was
two little boys walking through
the woods and they herd this
very strange noise it was coming
from the bush behind them they
turned around to see what was
going on but nothing happened the
kept on walking they heard the same
noise again the two boy became
very scared and started to run but
no matter how fast they ran the
bush where the noise was coming from
was still there all the time Pauline

¹ A converse problem, the cohesive relation of ideas in writing, was illustrated in the 1979 secondary report. In this report, the results of a task requiring persuasive argumentative writing were analysed. It was suggested that the incidence of grammatical errors in argumentative writing of that type could be traced to an uncertainty about the overall direction of the writing.

of the boys walked over to the bush very quietly and opened the bush up it was a very little man Peter the other boy walked over to the little man Peter said hello to the man and the man said hello back the little man had a big long nose with little eyes and a little mouth

4.66 Although the story just quoted was strikingly deficient in grammatical punctuation, its overall conception as story was not similarly rudimentary. The writer launched quickly into a world of fantastic encounters, ultimately portraying his two human characters as the rescuers of a whole kingdom of oppressed gnomes.

4.67 The stories which were simplest in conception were those which revolved around a day in the life of a small person or animal. The subject matter of these stories was drawn from family visits and outings, preparations for Christmas and birthday parties. Apart from the fiction of talking animals, such stories rarely had elements of fantasy in them. Their time sequence was generally that of the waking-eating-sleeping day, or at most, the extended unit of time of a holiday. Stories of this type were seldom characterised by outstanding performance; the domestic diary setting tended to be associated with stories like the one quoted below (this script was assessed as 3 in impression marking; though errors in grammar and orthography were noted in analytic marking, the style and content of the story were considered adequate to the topic).

Paul's Visit to the Zoo

One day Paul's mother and father took Paul to the Zoo. They arrived at the zoo early in the morning. They parked their car on the grass. Then went to see the animals. First of all Paul saw the lions and the Tigers, the lion walked around like a king, showing his long hairy mane and the Tiger sat there in the sunshine. Paul walked further and then he came to some big cages where the big bears were wandering around inside, some

drinking water and one walking across a log in the cage. Paul walked further then he came to a pond he saw some ducks, geese, and many other birds. Though on ^{one} ~~the~~ side he saw about 20 Flamingos all standing on one ^{leg} ~~leg~~. Paul then came to a big building he walked inside and in front of him he saw some big cages ~~some with~~ ~~the~~, they all had monkeys. Inside them they were swinging from bar to bar. Paul started to laugh ~~and~~ he stayed their looking at the monkeys for an hour. But soon it started to get dark and paul and his mother and sather had to go home. Paul had really enjoyed his day at the zoo.

4.68 Also few in number, but constituting a definable group, were adventure stories in contemporary settings about kidnapping, police chases or spooky imaginings. Insofar as the main characters were older children with complete autonomy of movement, they contrasted sharply with the homely constraints of 'Paul's visit to the zoo'. As a group, these stories made fewest concessions to the supposed predilections of younger audiences, either in terms of story form or content. They were not necessarily inferior stories on that account. The story quoted below deals with an imaginary shoot-out in an adventure playground (this script was assessed as 6 in impression marking; analytic markers awarded it full marks in all categories apart from content and organisation).

"The playground enemy

John carefully walked round the fence and into the adventure playground. In his hand he had a long stick which was his gun. He knew there was some enemy hiding somewhere waiting to kill him but he wasn't sure where. He now had the full playground in view. To the right he could see the brightly coloured scaffolding with the ropes and tyres hanging down. To the left there was a small fort. He decided to investigate the fort first as this seemed a likely place for the enemy to hide. He crept along the fence looking carefully to left and right. He was now approaching the wall of the fort. He turned the corner into the fort. He could not see anybody. Suddenly a mud grenade came flying towards him from over by the scaffolding. He dived into the mud to his right and the grenade flew past and exploded against the back wall of the fort. So now he knew where they were. He picked up some of his mud

grenades and jumped onto the battlements. He peered over the top and caught a glimpse of one of the enemy disappearing behind a fence. He decided to wait and let the enemy make the next move.

After about five minutes an enemy soldier looked from behind a tyre wall to see where he was. John picked up one of his mud grenades and threw it. It hit the enemy soldier on the back and blew him up. He only had two more to kill and then he would have completed his mission.

John got down from the battlements and peered out of the gate. He saw a small fence to his right and ran for it. Suddenly there was a burst of enemy fire and a bullet hit him in the leg. He carried on and reached the fence in agony. When he had been shot he had seen that the shots had come from the scaffolding. He got his guns ready and charged. The enemy soldier swung down on a rope and tried to kick John but he missed and John shot him in the heart and the soldier fell to the ground with a large thud! The third soldier now made his move. He fired at John but missed and hit the wooden fence. John returned fire and shot the enemy in the head.

He had succeeded in defeating the enemy!

He walked out of the adventure playground with his three friends and they all went home to John's house for some tea."

4.69 The majority of stories featured in the third and fourth categories, and it was in these groupings that the greatest degree of 'overlay' between tale types was noted. Many pupils shared a similar concept of a story appropriate for 4 to 5 year olds. Essentially this was a concept shaped by the conventions and format of fairy tales or inspired by the great bulk of stories for young children written by the Enid Blyton syndicate¹ (the interpenetration of the two basically distinct modes of narrative is less to be wondered at in view of the existence of many re-told 'traditional tales' or 'tales of long ago' from the pen of the same author).

4.70 Writers drew upon fairy tales for the overall framework of a story,² and for the array of motifs and situational archetypes³ offered with them. As a genre originating in oral narrative, the fairy tale retains certain qualities which make it eminently suited to reading aloud (for instance, the formulaic openings and closings surrounding a past tense narrative, filled with character-types that are easy to identify).

4.71 As had been noted in the context of traditional fairy tales, the combination of simply stated points of departure and clear linguistic markers that 'a story' is about to evolve from these is a distinguishing feature of the genre as a whole⁴ and, it is claimed, one of the ways of accounting for the accessibility of fairy tales to young audiences:

"The fairy story, although it may begin with the child's psychological state of mind — such as feelings of rejection when compared to siblings like Cinderella's — never starts with his physical reality . . . This deliberate vagueness in the beginnings of fairy tales symbolises that we are leaving the concrete world of ordinary reality . . . The fairy tale, from its mundane and simple beginning, launches into fantastic events. But however big the detours — unlike the child's untutored mind or dreams — the process of the story does not get lost. Having

¹ For example, *Fireside tales*, *Ten minute tales*, *Rag, Tag and Bobtail*, etc.

² Particularly the king/queen, prince/princess, brother/sister dyads; marauding dragon or giant; the cottage on the edge of a wood and subsequent journey into a forest.

³ "There was once a shoe maker who was very poor . . ."

"Once upon a time there were three Billy Goats . . ."
"Once upon a time and a long, long time ago . . ."

² B. Bettelheim, *The uses of enchantment*, Thames & Hudson, 1975, pp.62-3.

taken the child on a trip into a wondrous world, as it ends the tale returns the child to reality in a most reassuring manner.”²

4.72 In choosing a fairy tale as the ‘best example’ of a child’s story, 15 year olds were also implicitly demonstrating the saliency of these conventions to the would-be writer. Within the securely marked frame of a plain beginning and a known outcome, more elaborate adventures could be written with considerable fluency.

4.73 Other studies of children’s developing habits as story readers/writers have traced the processes by which archetypal fantasy structures come to be incorporated into expectations about fictive narratives. The gradual firming of these expectations and the emergence of strong associative schemes has been explored by Applebee (1978) through analyses of young children’s writing and in a series of interviews with school pupils. He quoted the response of a 9 year old to questions about the attributes of stock characters:

“What is a lion in a story usually like?” – “Fierce” – “What about a wolf. What’s a wolf in a story like?” – “Hungry” – “What about a rabbit in a story?” – “Fast” – “What about a fox in a story?” – “Sly” – “What about a fairy?” – “Kind” – “And a Witch?” – “Wicked.”¹

¹ A. N. Applebee, *The child’s concept of story. Ages two to seventeen*, University of Chicago Press, 1978, p.50.

4.74 However, though there was evidence in the sample that fairy tale character-plus-attribute schemes were widely established at age 15, at the moment of their re-deployment into new stories, the second major influence from existing narrative fiction seemed to come into operation.¹ Whenever a writer sought to find a name for a character, to locate someone in physical surroundings, to detail emotional reactions, or, most especially, to choose a moment at which to address the listener/reader, echoes of a prose style characteristic of Enid Blyton were striking.

4.75 As well as story-internal influences there were, of course, many stories which appeared to be based *in toto* on a variety of children’s fiction epitomised, if not exhausted, by Enid Blyton. This would account for the many tales of ‘animal’ adventure, and the numerous episodes of misbehaviour regretted (naughtiness and greed being the two most commonly encountered offences), on the part of children, elves or animals. Instances of ‘moralistic’ tales from the sample included “Bertram the spoilt bear, who finally promises never to be selfish again”; “Edward, a naughty boy”; “Jack ‘the naughtiest boy I ever knew’”; and ‘a very naughty elf called Peter’: each of these wayward characters eventually promised conformity.

4.76 In contrast to traditional fairy stories, which give proper names only to the main protagonists, if at all, the Enid Blyton story (or the genre of woodland/farmyard fiction it exemplifies) tends to familiarise every creature within it by the use of names. Several fertile naming techniques are employed: one is to confer on everyday or nonsense words the status of proper names (“Hum”, “Tap”, “Twinkle”, “Click”, “Snip”, “Brin-Brin”); another is to make an alliterative pairing with the generic name of the creature concerned (“Dilly the Duck”, “Slide-along Snake”, “Dimmy the Dormouse”, “Busy Brownie”), or to make the name exemplify the ‘character’ (“Curl-up/Prickles the Hedgehog”, “Moo the Cow”, “Hee-Haw the Donkey”; “Mister Biggety – a big and powerful gnome”; “a most unpleasant wizard called Grumpy Groo”).

¹ Three scripts are quoted in full in paragraphs 4.84 ff. in illustration of this analysis.

4.77 Of these, the naming technique which proved most attractive to 15 year olds was alliterative pairing. Thus, in one story "Gregory Giant", "Billy Badger" and "Sammy Snake" appeared; in another, an adventure in a vegetable plot, featured "Percy Pea" and "Trudy Onion"; there was also "Billy Blackbird's farm", "Penelope the pink pig", "Granny Grimble", "Geoffrey Gooseberry" and "Mrs. Olivia Owl". A grumpy old man was named "Mr. Wheezy", while other inventive surnames were "Mr & Mrs Tumbleweed" and "the Trotter family"; a wicked wizard named "Miseryplonk" featured in the overall story title 'Miseryplonk meets his match'.

4.78 The affectionate particularity of these naming techniques establishes quite a different view of the animal world from the one implicit in most fairy tales; animals which share the same family life as children, which live in houses and wear clothes, have no strangeness or mystery, let alone ferocity, with which a child has to come to terms. On the contrary, the friendly message of such stories is that there are no boundaries between animal, human and spiritual worlds (as represented by pixies or gnomes); the non-human elements are seen as quaintly enshrining human virtues and a few of the more manageable human vices (telling lies, playing tricks and stealing food).

¹ A. Applebee, *op. cit.* p.52

4.79 Insofar as a fairy tale can be said to embody 'a recurrent pattern of values . . . stable expectations about roles and relationships'¹, it does so partly by virtue of a parsimonious character list and type casting. In stories which are more whimsical in their way of creating characters, some of this distinctiveness and obvious patterning of events is lost, and with it some of the significance of the story itself.

4.80 As one way of explicitly imposing an order on the jostling social worlds created in farmyards and woodland, a characteristic move in a Blyton narrative is authorial intervention. While the story itself may not distinguish one type of reality from another, the voice of the author intruding into it can serve to align the listener's perspective with her own:

"Their mother was very pleased, indeed — and so am I. It's just the sort of thing that should happen, isn't it?

What a storm in a tea-cup! Everything is peaceful now — but just wait till that rascal of a Rolly lets something else go over the wall!

So now Goofy is doing his best to keep an eye on the time and he hasn't done badly so far! Are you good at keeping an eye on the time? You'd better be careful, in case you are made to keep an ear on it, too, like Goofy!"¹

¹ E. Blyton, *op. cit.*

4.81 The adult voice is used to give directives about what is significant, laudable or appropriate by way of response. In a parental manner, sometimes jolly, sometimes hortatory, the author's voice functions overtly as 'an agent in socialisation'¹, whereas in a classic fairy tale all such directives are omitted. Many of the most competent 15 year old writers likewise adopted these guiding tones as unquestionably appropriate for children only ten years younger than themselves, thus giving priority to a more interventionist 'Blyton-style' of narrative over older fairy tale techniques:

"John and Susan ate ice cream every day for the rest of the holidays — lucky them!"

¹ A. Applebee, *ibid.* p.53

"Wasn't he a lucky boy! And guess what else he had? He had a lovely new red bicycle which was red and he had a bell on it which went tinkle, tinkle."

"So you could have a very pretty name and you may think it is horrible, but everyone else may love it, just like Hilda liked Horris and Horris liked Hilda."

"... always be a good and truthful person and never do bad things like Simon."

4.82 Where the option of authorial intervention was not chosen, the story was more likely to remain on the level of an amusing excursion into nurseryland fantasy; many 15 year olds appeared quite satisfied to leave it at that.

4.83 A number of more general points made in the discussion above can be illustrated with reference to three stories in particular. Two of these were rated as 7 in impression marking and also scored full marks in each of the analytic categories. Between them they typify many of the characteristics of the most successful stories (9.3 per cent of scripts were assessed as 7 on this topic). The third example cited is also an instance of above-average performance, having been rated as 5 in impression marking (23.8 per cent of scripts were in this category). A consideration of these three stories as a group shows clearly two contrasting styles of narrative (represented by the first and third examples), with the second story providing an example of the mixing of styles commented upon earlier.

4.84 The first story, "The knight with the big nose", takes as its theme the magical transformation of a physical deformity which prevents its owner's acceptance as a serious member of his group:

"The knight with the big nose

Once upon a time, there lived a knight with a big nose. He had a huge nose, a really enormous nose. And when he went to joust with other knights they just fell off their horses laughing and saying 'Oh look at his nose, Oh, dearie me, isn't it big.' And when he wanted to rescue fair dames from fairies and things, they ran away, shrieking, "I don't want to be rescued by him, he's got a big nose!" And the knight was very sad, because no one would take him seriously.

One day, the knight decided that he must do something about his nose. And so he went on a Quest. Whenever knights of old wanted to something, they went on a quest. So he polished his armour, sharpened his sword, got on his horse and rode away, to go on a quest. He rode for many days and nights, far, far away from his home. And all the time he could see his nose in front of him, and he grew sadder and sadder.

One fine morning, he saw a castle ahead of him. So he rode up to it and banged on the door. After he had banged on the door a little old man answered it. But the knight saw that he had a tall, pointed hat, so he knew that he was a wizard.

The knight said, 'O wizard, help me, for I have a big nose.'

The wizard said, 'Well you certainly do appear to have a very big nose, you know. But I can help you, if you do what I say.'

'What shall I do, O wizard' said the knight.

'You must kill the dragon that lives over the hill and bring me the tip of his tail.'

Very well, said the knight, 'I shall do it.'

So he rode over the hill, and saw the dragon. And he was very frightened, for it was the biggest dragon he had ever seen in his life. It was big enough to swallow three horses and then ask for more (if it could have spoken).

But the knight rode down to the dragon and shouted loudly at it, 'Come dragon, and do battle with me'.

So the dragon leapt into the air with a clap of its huge wings, flew up and swooped down on the knight. The knight fell off his horse, but managed to fend off the dragon with his shield held above him. Then the knight leapt to his feet and the fight began. It raged for two days and two nights with neither the knight nor the dragon gaining the upper hand. Then the knight began to tire and the dragon pressed down upon him. Suddenly, the knight thought of something. He raised his head and poked the dragon in the eye with his nose. As the dragon roared in agony the knight cut his head off.

Then he walked wearily to the other end of the dragon and cut off the tip of his tail. He then went back to the wizard.

The wizard was very surprised to see him, but took him inside and started to make the potion that would reduce the size of the knight's nose. After throwing in the tip of the dragon's tail, the wizard gave a cup of the potion to the knight. He drank it and then to his amazement, his nose began to shrink. When it was the right size the knight went back to his home, and everyone lived happily ever after, apart from the dragon, who was dead."

4.85 The above story is written within the conventions of a questing knight tale: damsels in need of rescue, shining armour, castle with resident wizard, dragon-slaying task and magic potion. The vocabulary used through the tale preserves the fiction of long-ago and far-away times with words like 'feud', 'quest', 'fair damsels'. The description of the battle with the dragon is likewise written in a mock-heroic style, from the knight's challenge, 'Come dragon and do battle with me', to the dragon's descent 'with a clap of its huge wings' and their ensuing mortal conflict which 'raged for two days and two nights'.

4.86 In common with traditional tales, neither the protagonist nor his adversary and ally are given specific names (*a* knight, *a* dragon, *a* wizard) but are recognisable by virtue of their visible characteristics and type-cast behaviour. So far is the author in command of the (known) outcome of the knight's quest, that he is able to remind his audience of the conventions of this narrative type, while drawing attention to the emblematic significance of specific events on the way:

"Whenever knights of old wanted to do something, they went on a quest."

"... the knight saw that he had a tall, pointed hat, so he knew that he was a wizard."

4.87 Along with such detached command went a related ability to make ironic adjustments of perspective on these well-worn conventions themselves:

“(The dragon) was big enough to swallow three horses and then ask for more (if it could have spoken).”

“... and everyone lived happily ever after, apart from the dragon, who was dead.”

4.88 Considerable skill is shown in the structure and sequencing of “The knight with the big nose”. At several points, one phrase echoes another in the manner of a refrain, serving, for example, to stress the knight’s gloomy awareness of his outsize nose. The first two paragraphs each end with a reminder of this fact:

“And the knight was very sad, because no one would take him seriously.”

“And all the time he could see his nose in front of him, and he grew sadder and sadder.”

4.89 Similarly, the drawn-out battle with the dragon parallels the lengthy quest (‘he rode for many days and nights, far, far away from his home’). With an adroit feel for detail, the author does not forget the previously established dimensions of the dragon: even at the moment of conquest, the knight has still to cope with its enormous bulk, for we are told ‘then he walked wearily *to the other end* of the dragon and cut off the tip of his tail.’

4.90 The second story, “The good and the bad fairy”, is also concerned with physical transformation, though here the story deals with the casting and lifting of a ‘shrinking’ spell:

“The good and the bad fairy

Once, quite a long time ago, there lived a little girl called Emma and a little boy called Johnathon. They lived with their mother and father in a big house near some woods. One day, after tea Emma and Johnathon thought they would go and explore in the woods, so off they set with their new yellow mackintoshes on in case it got cold.

While they were walking through the wood they came to a small pond that they had never seen before. As they got closer they could see gold-fishes in it, so they sat down at the edge to watch. Suddenly a big shadow fell over the pond and both Emma and Johnathon looked round to see what it was. To their surprise they saw a very tall lady. She was very ugly and had a horrid pink dress on that Emma said she didn’t like at all. Then the lady spoke and asked the two children what they were doing at her pond.

‘Nothing, just looking at the fish, and we weren’t hurting anybody’, said Johnathon. Then the lady said,

‘I am Grizelda, the bad fairy of the pool, and unless you go away from my pool and stop disturbing my fish, I will cast a very nasty spell on you’, said the bad fairy.

At this Emma became very frightened and started to cry. Then Johnathon, her older brother piped up,

'Now look what you've done to my sister and besides we weren't hurting your pool anyway so why should we go away!'

This made the fairy very angry indeed and so she got out her long black wand and cast a spell on the two children saying,

'Abracadabra, gobbledy-goo,
Make these two children,
Smaller than you',

pointing at her black cat that had jumped down from the tree onto the ground just by Emma.

All at once Emma and Johnathon felt themselves shrinking smaller and smaller until they were only 8 inches tall, which is very small indeed!!! Emma and Johnathon were so afraid that they jumped up from where they were sitting, and ran as fast as they could all the way home. When they got there they rushed up to their mummy and told her how the bad fairy Grizelda had made them so small. The childrens mummy became very worried, so she took them in her big red car to the doctor. The doctor said that he was very sorry and that he could only think of one solution to the problem. That was to go to the other end of the woods, to another pool he knew about and call as loudly as they could for Josephine, who was the good fairy of the woods.

Mummy drove the children home in the car, very, very quickly and they rushed into the woods to the other pool of water. When they got there, very puffed out from all the running, the children called for Josephine, and with a flash of light she appeared and asked them of what help she could be.

'We want to go back to our proper size', the two children spoke together.

'Of course dears, just drink some water from the pool and wish very hard. The children did this and they suddenly started to grow back to their normal height. Emma and Johnathon thanked Josephine very much and ran home to show mummy. The children never saw the two pools again, which was quite lucky, and they lived with their mummy and daddy very happily.'

4.91 This author too is sufficiently in command of the overall shape of her story to be able to engage with her listener's point of view, but in both address to listener and the details of the story itself she takes a very different tone from that noted in "The knight with the big nose". By giving contemporary names to her main characters and making references to contemporary aspects of appearance and behaviour, she gives her story a much more here-and-now quality. Despite the opening phrase ('Once, quite a long time ago . . .'), we find that the children set out towards the woods 'with their new yellow mackintoshes on in case they got cold'; after the spell is cast a worried mother rushes them 'in her big red car to the doctor'. The bad fairy, though appropriately ugly, is perceived more particularly through Emma's eyes '(she) had a horrid pink dress on that Emma said she didn't like at all' (it may be recalled that 'horrid' is the standard Blytonian adjective for all things distasteful).

4.92 At one level, this story owes much to the fairy-tale genre. It uses the motif of a journey by a brother and sister into a wood, where good and evil forces are encountered as symmetrical absolutes; a single act of trespass is punished by a (revers-

ible) change of size, and adult or superordinate forces are instrumental in the final rescue. However, unlike other acts of trespass such as Hansel and Gretel's eating of the gingerbread house, or Sleeping Beauty's fated entry into the wicked fairy's chamber, there is nothing preordained or wilful about Emma and Jonathan's discovery of Grizelda's pool (as the writer notes in conclusion, they were 'lucky' never to see the two pools again). Jonathan's defiance of the bad fairy seems entirely reasonable, 'Now look what you have done to my sister and besides we weren't hurting your pool anyway, so why should we go away?'. The domestication of the main story elements, while perhaps arising from a desire to locate the action more obviously within a 5 year old world view, simultaneously makes it more difficult to discover the overall significance of the story (maybe it is best interpreted as an exploration of the type of arbitrary punishment likely to be experienced outside the protecting confines of home, but not so grave or damaging an experience as to be beyond the ability of homely powers to rectify. It is, after all, by virtue of mother and doctor that the 'good fairy' antidote is discovered).

4.93 The third and final example was not provided with a title by its author. It takes as its theme the loss of Gregory Giant's boot and its eventual replacement by Sammy Snake the Cobbler¹;

¹ This script is reproduced with some corrections made

"One dark winter's morning Peter Rabbit decided to go out for a walk to see some of his friends and as it was dark outside he decided to take a lantern with him. As he was walking along he suddenly came across Gregory Giant, 'Hello Gregory', said Peter, 'how are you?'. 'I'm alright' replied Gregory, 'Except I have only got one boot on, and everytime I go out walking and take my best stick with me all I can hear is Big Bang, Little Bang, Big Bang, Little Bang, and my poor toes are turning blue what with all this cold, cold snow in the ground.' 'Never mind', said Peter Rabbit, 'come along with me and we will go and find Bill Badger to see if he can make you a new boot'.

So off went Peter and Gregory, with Gregory's feet going Big Bang, Little Bang. Soon they got to Bill Badger's house, and they asked him if he could make the giant a new boot. Poor Bill couldn't, he didn't have enough leather for the Giant's boot. 'Never mind', said Bill, 'Lets go and see Sammy Snake, he should have some leather.' Off they went, Gregory the giant going Big Bang, Little Bang, Bill Badger and Peter Rabbit.

Before they got to Sammy Snake's house they heard children laughing. Gregory Giant being the biggest person peeped over the wall. There was his old boot, but it had windows and a door, there was a lovely big chimney with smoke coming out of it. Gregory sat down and began to cry, the old woman and her children who were living in the giant's boot tried to comfort poor Gregory, but he was too upset. 'That was my best boot', he sobbed. Peter Rabbit, Bill Badger all stood around Gregory looking very unhappy, until the old woman suddenly yelled, which made everybody jump at once.

'I know, let's go to see Sammy Snake, he put in the chimney on your boot, Gregory, but he should have enough leather to make a nice new boot for you.' Everybody thought that was a great idea and decided to go and see Sammy as soon as possible, as Gregory's tears were almost drowning them.

Off they all went, Peter Rabbit swinging his lantern even though it was light now, Bill Badger, the old woman and her children, and of course Gregory Giant going Big Bang, Little Bang. Soon they came to Sammy's house, where he was busily making shoes. 'Can you make Gregory a new boot?' they asked. 'Of course I can', answered Sammy, and with that slithered away.

When he came back on his back was a lovely new boot for Gregory. He put it on, and started walking and jumping.

He no longer went Big Bang, Little Bang, but Big Bang, Big Bang.

Everybody cheered as Gregory went skipping down the road, which is a very funny sight, if anybody has ever seen a giant skipping."

4.94 Of the stories so far discussed, this one seems most unequivocally to owe its inspiration to nurseryland narrative. Despite the interpolation of one Beatrix Potter character (Peter Rabbit) and the image of drowning in tears (*Alice?*), the main influence seems to be from Enid Blyton stories. In fact, given the practice of the latter of importing into her own stories characters from both nursery rhymes and legends, these two 'echoes' may be part of a deliberate technique.

4.95 At any rate, the teller of the tale of Gregory Giant's missing boot assumes her listener's complete familiarity with the characters in her story. No introduction is given to any of them; they take their identity from the known small world of the story (one of the location clues in the story is the finding of Old Mother Hubbard resident in the lost boot itself). Differentiation between the characters in psychological or functional terms is not at issue. It would hardly be appropriate for any listener to ask questions, for example, about which animal is most likely to be of use in supplying a new boot. There is accordingly no suspense within the tale; elements of inevitability or peril associated with questing in fairy tales are far removed from this nurseryland story. Nor does Peter Rabbit's presence in the tale bring with it any premonition that a hostile 'human' might be close at hand. The only 'human' encountered is a sympathetic and helpful Mother Hubbard. Features such as these place the story within the category of palliative fiction, aimed simply to amuse the listener/reader.

4.96 The story is structured according to the simple additive principle of successive meetings between characters and their combination into a questing group. With a tale structured in this way, there is no necessary limit to the number of episodes which can be generated. Such constraints as there are, are more a matter of listener's concentration than of writer's stamina. To her credit, the writer of this tale has the shape of her story well in hand and, moreover, uses the refrain of Gregory's limping footfall (Big Bang, Little Bang) as a means of interconnecting events. When the new boot is made, a change in the rhythm of his footsteps (Big Bang, Big Bang) signals the happy outcome of his quest.

4.97 Both this story and "The good and the bad fairy" show a similar tendency in their conclusions, reminiscent of that remarked upon earlier as a feature of many Enid Blyton stories: the author's voice is used to reinforce the particularity of events within the tale. "The good and the bad fairy" finishes with a comment within the 'happily-ever-after' frame: 'The children never saw the two pools again, *which was quite lucky* . . .'. The author of "Gregory Giant's" tale uses her conclusion not so

much to comment on the outcome in an intentionally reassuring way, but so as to gently perpetuate the fantasy by inviting her listeners to go on imagining the humour of a skipping giant:

"Everybody cheered as Gregory went skipping down the road, which is a very funny sight, if anybody has ever seen a giant skipping."

4.98 The intention of this discussion has been to analyse the most salient features in a large sample of stories written by adolescents for younger listeners/readers. Characteristics of stories in the third and fourth categories distinguished earlier (fairy tales and nurseryland fiction) have been highlighted, as between them, these two story types accounted for the majority of the sample. In terms of writing techniques, there seemed to be demonstrable advantages for many writers in having available models of children's fiction to draw upon; the fluency of the stories produced, their ingenuity of plot and characterisation would easily fulfil the requirement of entertaining most 4 or 5 year old audiences. Follow-up questions do, however, present themselves when these achievements are looked at in more general terms. For example, how aware would these 15 year olds be of the large amounts of pastiche evident in even the best of their stories? What degree of conscious choice was made between fictional modes as diverse as traditional fairy tales and contemporary children's literature? What criteria would 15 year olds employ to distinguish between fiction appropriate to their peer group and that addressed to pre-school children? Did the way in which most pupils elected to write for a younger audience implicitly embody a general view of the function of children's stories: to amuse, to divert, and when most serious, to 'sugar the pill' of moral instruction?

¹ The place and purpose of editing tasks in the assessment of writing performance has been described in previous survey reports.

Results of an editing task¹

4.99 As part of their writing booklet, pupils were asked to read a short passage written by another 15 year old, and to suggest ways in which improvements could be made to the text. In addition they were invited to comment on their reading of the passage after they had made alterations to it. The task was presented to pupils as follows:

*We often write in different ways for different purposes, and usually we have to go back over a first draft making corrections to it. Imagine you are the editor of a school magazine and have been offered the following piece of writing (see pages 10 and 11) for inclusion in the discussion pages.

*The problem is that the writer does not seem to have checked through the writing, and some parts of it are too informally written for your magazine.

*What changes would you make before considering the work ready for printing? Draw a line under points which seem to you to need changing, then write your corrections above the line. (Some possible changes have already been made for you as examples.)

*When you have made the alterations to the passage which you think are necessary, comment on what you have done by completing this statement:

*I think the main mistake/mistakes in the passage is/are

4.100 The responses of 470 pupils on a passage discussing a doctor's right to strike (similar to one used in the 1979 secondary survey) were analysed, and the results are given below.

4.101 It was noted in the discussion of the results of two editing tasks in the 1979 secondary report that, although 15 year olds proved sensitive to instances of grammatical ineptitude and overt colloquialisms in written texts, their suggested alterations tended to relate mainly to individual words and phrases; more wholesale rewriting was rarely attempted. One of the purposes of inviting a comment from each pupil about the 'mistakes' in the given text was to encourage the articulation of opinions about the overall organisation or effect of the passage on a scale that may not have been indicated by the corrections made to it.

4.102 Most pupils took the opportunity to comment on the text, and most of them drew attention to informality of expression as the main fault. Excessive informality was usually specified in terms of 'slang words' and in the use of contracted forms; these items attracted attention both in written comments and in actual alterations to the text. Thus between a half and three-quarters of the sample correctly changed *quid*, *pretty smart* and *a chap* to more abstract, formal language. Approximately 30 per cent of the sample wrote out in full *it's*, *can't* and *don't* each time such versions were encountered.

4.103 In their comments on these stigmatised forms, pupils tended to be quite prescriptive:

"... the person who wrote it is not writing out the words properly for e.g. Don't when it should be Do not and that they are abbreviating other words such as Doc. They should take more care in this."

"... the writer seems to be shortening most words and not using suitable words."

"... it seems very bad just to say 'for the sake of a few quid'. The last paragraph in my opinion could be put over to the public much better if words were well chosen."

"... in a paragraph you wouldn't say 'just for the sake of a few quid', because that is common, you should say pounds because that is the proper word for money."

"... some words are used in a slang language which shows no intelligence."

4.104 A similar response rate was found in instances of singular/plural confusion: approximately 50 per cent of pupils made the necessary grammatical agreement between subject, pronoun and verb in two parts of the text. Though in fact these were the only errors of grammar in the passage, their existence seemed to colour pupils' perceptions of the whole. Comments referred to 'lack of grammar' and suggested 'the writer keeps swapping tense' (e.g. first he uses 'he' for the doctor and then 'they'). Pupils often seemed to merge the notions of 'tense' and 'number' in some of their comments:

"For instance, many of the mistakes can be corrected by the simple use of different tenses and agreements with the plural verbs and nouns."

4.105 Despite the vagueness in some of these attempts to characterise errors in verb/number agreement, pupils who were able to locate the problem in some form were generally also able to convert the text accurately. By contrast, there was less coincidence between comments made on the content and style of the passage and the success of pupils in making the alterations they thought desirable.

4.106 Few pupils made alterations to statements in the text which might have been considered contentious or factually inaccurate. For example, only 5 per cent re-phrased or deleted 'The reason why doctors might go on strike' to make the conjecture less definite: 'A reason . . .' or '(some) doctors'. Yet in their criticisms of the passage, pupils were more outspoken about the degree of 'personal opinion' which it contained:

"The main mistake is that the person writing has written their own personal view. This should not be done because there are many points for and against a doctor going on strike and personal views should be left out of the article so that the person can decide for themselves."

"... too much personal opinion in a non-formal way. The passage was written as if the person was talking to you and expressing his own personal opinion."

4.107 Pupils who objected to the substance of the argument ("the mistake in the passage is the thing about doctors being underpaid"), or with the writer's stance towards his subject matter ("the writer changes his point of view halfway through the passage"), went no further in suggesting changes to the content.

4.108 The second area of mis-match between general comments and particular corrections was in terms of style. At several points in the passage, improvements could arguably have resulted from the rewriting of several sentences in sequence, the combining of short disjointed sentences, or the closer linking of paragraphs. Pupils noted the merits of such changes in their comments more frequently than they attempted them in practice:

"The main mistake is the continual repetition of the theme of the passage. Surely the pupil could find another way of expressing himself instead of using the same words again and again."

"... he uses too many short sentences when it would be better to put commas in and continue the sentence instead of beginning a new one."

General comments like these on the style of the passage were rarely reflected in the changes made.

4.109 Results showed that around a quarter of pupils successfully undertook the re-casting of textual units larger than a two word phrase. It was also notable, however, that these were the parts of the text on which many pupils who attempted an alteration made matters worse by substituting one kind of awkwardness for another. Thus, suggested improvements to the statement 'and people would be dying off all over the place' included 'people would be dead all over the place'; 'people would be feeling ill all over the place'; 'people would be dying off everywhere/quite frequently'. Of a total of 53 per cent of pupils who attempted to amend this statement, only 21 per cent succeeded with versions such as 'people would be seriously ill, possibly dying'; 'people would be in a desperate situation'; 'there would be many unnecessary deaths'.

4.110 At one point in the passage, the arduous nature of a doctor's job was instanced as *being called out at three in the morning to help a chap whose leg's stuck in a car window*. As compared to the 73 per cent of pupils who altered *chap* to a less colloquial expression ("a person", "someone"), only one-third of the sample attempted to recast the entire statement to read 'a person who's had an accident in a vehicle'; 'someone who may have had only a minor accident'; 'on very minor things at times'. The 13 per cent of pupils who were considered to have made no improvements to the original gave versions such as 'to help a chap who had stuck his leg through a car window', 'whose leg was in agony or difficulty', or to help 'a gentleman in a car accident'.

4.111 It was found that performance on items such as the stylistic changes detailed above showed the highest correlation with success on the task overall. Scores on the two items referred to in 4.109 and 4.110 were correlated with total score at the 0.001 level, and would account for between 44 per cent and 27 per cent of the variance between mean scores. There was a significant correlation between this editing task and the mean writing performance score derived from impression marking, ($p < 0.001$, $r = 0.55$).

4.112 Where the results of editing tasks were analysed at primary level, a characteristic error in the type of alterations pupils made to texts appears to stem from an over-narrow focus on the word-by-word structure of the text. That is, where pupils introduced an alteration to one item, the effect of this change on other elements in the text was disregarded, sometimes, a word was read as incorrect because material intervening between it and its referent was confusing. A parallel example of this problem occurred in the task for 15 year olds. While over 70 per cent of pupils noted that a change was needed in the sentence 'woman who are expecting their first babies need to know that a doctor is there to help them', and most of them (51 per cent) opted for the plural subject noun "women", the remainder tried variations based on a series of singular forms 'a woman who is expecting her first baby . . .', without reading to the end of the sentence and changing the final pronoun in addition.

4.113 By eliciting pupils' comments on the types of editing which they saw as most essential, a more general perspective of their work was obtained. It was of interest that, for at least one-third of the sample, an undesirable informality of prose style was, in part, synonymous with the use of contracted verb forms; informality was also objected to as contributing undesirably to an over-personalised mode of argument. Pupils' comments sometimes suggested disagreement with the opinions put forward in the text, but only a minority of editors tackled portions of the text where assertive statements could be mitigated. Similarly, although the need to rewrite or combine whole sentences of the passage was mentioned in comments, these areas of editing were least successfully accomplished in practice.

The assessment of writing performance: main findings

4.114 Two extended writing tasks were discussed in relation to the distribution of analytic marks on each of them, and the subsequent reading of scripts in the review stage of marking procedures.

4.115 Discussion within paragraphs 4.41 to 4.98 was intended to highlight significant features of the achievement of pupils in completing, firstly, a short report of interesting material learnt recently, and secondly, a fictional story addressed to 4 or 5 year old children. In paragraphs 4.99 to 4.113 the results of an editing task were discussed in relation to pupils' comments on the alterations which they had made to a given text.

4.116 It was noted that pupils writing the short report tended to score more highly in the analytic categories of *content* and *knowledge of grammatical conventions* than did those writing the children's story. While the higher scores for content reflected a greater degree of originality in the choice of subject matter by the report writers, higher scores for grammar were not necessarily indicative of more competent writing. A close reading of scripts on this report topic suggested that grammatical errors were often quite simply not committed because of the (over) use of simple, declarative sentences, a frequent concomitant of writing which aims to relay discrete items of information. Grammatical problems tended to be more often encountered by those pupils who sought to speculate on or more fully explain, perhaps for the first time in writing, their interest in a particular topic. The occasionally inchoate expression which resulted, combined with the incidence of monotonous sentence patterns, was the main explanation for generally lower marks for *appropriateness and style* on this topic.

4.117 The analysis of stories written for young children revealed that two sources of inspiration were drawn on by over half the sample. In content, most stories echoed either traditional fairy tales or the genre of nurseryland fiction popularised by Enid Blyton; in terms of style, this latter influence was especially marked. Although more searching questions may well be posed about the long-term appropriateness of whimsical fantasies for pre-school children, the majority of 15 year olds proved able to write fluently within this mode. If Enid Blyton prose is something the reader outgrows, it seems not unreasonable to suggest it is also one a writer learns to go beyond.

4.118 Results on the editing task again indicated that most 15 year olds are capable of detecting, and providing a correct alternative for, instances of non-grammatical usage or extreme colloquialisms in written texts. The comments made by pupils on a given text also indicated that their awareness of changes which could be made was not so generally combined with the ability to make them, when alterations involved contexts larger than single words or short phrases. Stylistic alterations which involved stretches of text were found to produce the greatest number of incorrect revisions.

4.119 When the writing performance of 15 year old pupils is reviewed as a whole and over all the tasks set, it can be seen that approximately 30 per cent of pupils were thought to have produced writing in which the content was substantial and original, entirely coherent in organisation, and without orthographic errors. A similar proportion of pupils were completely confident in their handling of grammatical conventions, but fewer (15 per cent) achieved similar excellence in terms of style. The work of between 35 per cent and 48 per cent of pupils was awarded a mark of 4 in each of the analytic categories, indicating that this was writing in which the content and organisation were considered in the main adequate to the

demands of the topic, and written for the most part in a style appropriate to the subject matter and presumed audience. Around 47 per cent of pupils' writing contained very few errors in terms of knowledge of grammatical conventions, while a slightly lower proportion (35 per cent) of writing was considered to show no more than a few problems associated with the mastery of orthographic conventions.

4.120 At the other end of the scale, a closer analysis of the weakest writing revealed that it was in terms of *appropriateness and style* that scripts were most usually found wanting. Approximately 9 per cent of scripts received analytic marks of 2 or less in this category, indicating that their written style was barely responsive to the need for what was written to be interpreted by a reader.

4.121 While these general findings appear to parallel those noted in the first secondary survey, no firm conclusions as to 'trends' or 'standards' can be drawn until the full series of surveys is completed.

Attitudes to writing: pupils' responses to open-ended questions

4.122 As in the 1979 secondary survey, each writing booklet contained three questions designed to elicit information about pupils' attitudes to writing. These questions were as follows:

1. *Now that you have completed this booklet please say which part you preferred doing. Give a reason if possible.*
2. *Of all the things you have written at school/home, which was the one you most enjoyed doing?*
3. *Please complete the following statement:*
I think the most important thing about writing is

4.123 The first and second questions had been used in the 1979 survey, together with one about areas of dislike in writing, and responses to these questions were analysed across a 10 per cent sub-sample of booklets (448 scripts). In this survey, a 20 per cent sub-sample (792 scripts) was chosen, using the two writing booklets containing the extended writing tasks discussed in paragraphs 4.41 to 4.98 (the children's story and the short report).

4.124 Several areas of interest had emerged from the 1979 analysis and these will be further discussed here. Points of coincidence between the data on attitudes to reading and writing had been noted in 1979. These were again evident in the 1980 survey with respect to boy/girl differences in preferences for factual/non-factual writing tasks, a significantly different range of personally-focussed choices for writing in the two sex groups, and the greater prevalence among boys of negative attitudes towards writing.

4.125 Summary groupings of responses to all questions were made and differences in the response patterns of boys and girls noted. Since it had been found in 1979 that the extent of correlation between any one statement about enjoyment of writing and actual performance was slight, responses to questions one and two were not compared with performance scores. However, the data from question three were

subjected to additional analysis, because it was hypothesised that such statements were likely to reveal more of a pupil's basic approach to writing, and therefore more likely to show correlations with performance scores derived from impression marking. As before, however, even when significant differences in mean writing performance scores were associated with groups of pupils stating one attitude as compared with others who did not, the amount of variation between the scores was only minimally explained by the presence of that attitude.

Replies to question one

4.126 *Now that you have completed this booklet, please say which part you preferred doing. Give a reason if possible.*

For pupils completing the two booklets analysed, the choice was between an initial task involving the explanation of a familiar activity, writing a children's story or a report of recent learning (according to the booklet allocated), and a third section requiring editing corrections to a given text. Very few pupils were unable to nominate a preference within the booklets: non-responses or stated negative attitudes accounted for only fifteen replies. Preferences within the two booklets were broadly distributed as follows: approximately half the sample preferred the task of explaining a familiar activity; approximately a quarter preferred either the report or story writing task, and less than a quarter preferred the editing work offered in part three.

4.127 No sex differences were found, either in the minority of non- or negative responses to this question, or in the stated preferences for part three. When responses to each booklet were separated, sex differences were evident in the preferences of boys and girls. Whereas a significant majority of boys (60 per cent)¹ preferred the task of explaining a familiar activity irrespective of the other writing tasks, the preferences of girls changed when the children's story was paired with the explanation. The majority of girls preferred to write the story, thus accounting for a significant sex difference in part two choices.

4.128 The reasons given by pupils for preferring the explanatory task generally revolved around their interest in the subject matter, and the feeling of confidence they had in writing about a familiar activity:

"... I was not cramped by style or subject."

"... I felt comfortable writing this."

"... I wrote about my own obsession ..."

"... I would like to write a book on this."

"... I know what to write."

4.129 Though the main source of pleasure was in the subject matter, pupils also remarked on the interest of explaining it to someone else:

"... it made me think of how to tell someone what I usually just take for granted."

"... I like explaining things in writing."

"... I could teach something that would be of use."

¹ Throughout this section, percentage figures relating to proportions of pupils' responses have been rounded to the nearest whole number.

4.130 Highly similar reasons were given by pupils preferring the task which asked for a report of recent learning ("it brought my own interests into it", "... easier to write about what interests me", "the subject was fresh in my mind"). Some replies indicated that recounting something learned had provided an opportunity for evaluation: "I enjoyed expressing my views on subjects which interest me greatly"; other responses registered surprise at the amount of learning that could be recalled:

"... you don't realise how much you learn each day but don't really think about it."

"... shows me how much I learn in a short time."

4.131 Those pupils who preferred writing a children's story likewise referred to their interest in the topic chosen and the readership addressed, but with a fundamental difference in emphasis. For story writers, the salient feature of their preferred writing task was that it entailed "imagination, not facts". In sharp contrast, preferences for the explanatory or reporting task constantly noted, with satisfaction, "I didn't have to make it up", "It was factual and not fiction". The following replies were typical of the way preferences for the story were explained:

"... you can let your imagination run away with you."

"... I could dream and imagine things that were impossible to do anywhere else."

"... I like writing stories, you can write anything you want."

4.132 Pupils specified their enjoyment of addressing a younger age group; many said they liked children, liked telling them stories, or intended to work with them on leaving school. For some pupils the task had an element of nostalgic appeal: "it reminded me of the stories my mother and older sisters used to read to me".

4.133 The proportionally fewer pupils (boys 17 per cent, girls 20 per cent) who claimed to have most enjoyed part three (the editing corrections), did so along lines familiar from the analysis of responses in the previous survey. Replies suggested that the task was "easier", "quick", "less boring"; that it was "good practice", "useful"; that they enjoyed "criticising" and were amused at the mistakes *they* were able to underline (for a change).

Replies to question two

4.134 The significant divergences of opinion between boys and girls as indicated by choices within the APU booklet, were also reflected in the pattern of replies to the more general question:

Of all the things you have written at school/home, which was the one you most enjoyed doing?

4.135 The preferences expressed by boys tended to cluster around explanatory/expository types of writing, while girls were in the majority where imaginative writing was indicated. As had been found in 1979, these two broad categories of writing between them accounted for approximately half the 'best liked' writing activities mentioned (sex differences, though in the same direction in 1979, had not then reached significance). A further point of interest was that when the preferences

expressed by boys were considered separately, slightly more of them indicated a particular liking for some instance of 'imaginative' writing than for 'factual' writing (21 per cent as against 19 per cent). However, far more girls nominated imaginative/creative/fictive writing as their favourite (32 per cent) and significantly fewer girls (10 per cent) expressed a particular liking for expository writing (writing up projects, use of secondary sources, dealing with 'factual' subject matter).

4.136 Differences in the way these choices were perceived are illustrated by the following quotations:

Factual writing

"... a project about the Saxons as I could illustrate my work and I learned a lot from it."

"... a commerce project which was on Postal Services."

"... a project about the fox. Gathering and putting on paper all the necessary facts was interesting and good fun."

"... I enjoy doing projects as it helps you to find out additional information which you would not learn in school and you can also display it in whatever way appeals to you."

"... a topic on fashion stating my own views and looking up information was very enjoyable."

Non-factual writing

"... if I feel in the mood, I just like to write poems."

"... a science fiction story about the coming end of the world. I enjoyed it because I could really exercise my imagination."

"... a story for English that had no restriction on style or topic, so I could use my imagination."

"... I enjoy trying to describe how I felt in a poem."

"... a story on violence. It was something that I could really put myself into. I pretended that I was in it."

"... a play describing a typical argument between three people."

"... a story which had been given a title that you can interpret yourself 'The Day Everything Went Wrong'."

4.137 A comparable distinction between an interest in writing with a practical, informative bias, and writing used to shape or create new areas of personal understanding, was evident in the information given about writing which arose from non-school based subject matter. Whereas a significant majority of boys said they had enjoyed writing about their hobbies, sports or recreational interests (boys 7 per cent, girls 2 per cent), more girls than boys said that they enjoyed writing on subjects which were autobiographical in type, associated with the self or family (girls 9 per cent, boys 4 per cent).

4.138 This distinction was also noted in the survey of attitudes to reading.¹ Data from both areas suggest a link between reading tasks and writing habits, and a possible connection with subject choices. It is known that, by the age of 16, boys

¹ See paragraphs 3.55 and following.

² DES *Statistical bulletin. Provisional figures of leavers from English Schools, CSE and O level statistics 1979, 15/80*

³ M. B. Sutherland, *Sex bias in education*, Basil Blackwell, 1981.

⁴ A. Wolpe, *Some sexist processes in education*, WRRC, 1977, p.14.

and girls are differently represented in major curricular groups (proportionately more girls achieve CSE/O levels in arts, proportionately more boys qualify in science subjects).² The polarisation of girls' and boys' subject choices at school leaving age is equally evident in the priorities each sex group accords to language activities within an apparently common curriculum at age 15. The influence of classroom expectations concerning 'appropriate' performance from different sex groups has been well documented in many subject areas;³ within the context of school-based written work, different expectations about girls' and boys' orientation to subject matter and their treatment of it⁴ may serve to reinforce predilections already established by reading and out-of-school activities.

4.139 Other areas of remembered enjoyment in writing mentioned by approximately one in ten of the sub-sample, were essay writing in general (11 per cent) and letter writing (11 per cent). No sex differences were significant in either of these choices, although the trend was for more girls than boys to favour letter writing. Smaller numbers of pupils instanced the APU booklet as their most enjoyed occasion for writing (6 per cent); course work in English language, written examinations and writing of any kind was liked by about one in fifty pupils. Approximately one in twenty five pupils made specific mention of the choice between writing at home and writing at school. Of those who commented on the alternative, more preferred to write at home, saying "I can relax more"; "... concentrate better"; "usually the ideas come to me more easily"; "... with only myself seeing what I had written". Pupils who stated a preference for writing at school typically mentioned "your teacher helps you write it out"; "you are given advice".

4.140 The final group of responses to question two which constituted an identifiable proportion of pupils related to stated dislike of writing, (2 per cent) or non response to the question (5 per cent). Boys significantly outnumbered girls in the category of explicitly stated negative attitudes to writing ("... really I don't enjoy writing much - in fact I can't stand it", "... I hate writing", "... I cannot remember writing anything I have enjoyed"). This finding echoes that noted in 1979; the number of pupils with negative or non-responsive attitudes was likewise similar. Where negative attitude statements towards reading and writing were compared with overall performance scores in these areas, a small, but significant negative correlation had emerged. The data from the 1980 writing survey confirmed this trend.

Replies to question three

4.141 *I think the most important thing about writing is...*

In completing this statement, pupils were obviously free to nominate any feature of writing or written work which they chose. Simply by nominating one area of importance a pupil was not thereby dismissing others; this consideration should be borne in mind in relation to the categorization undertaken below, which is necessarily selective in focus.

4.142 Pupils gave extended rather than one word answers, frequently citing more than one important feature. Where these were interrelated (e.g. "to write good clear English and write so as your writing can be read by others"; "... the most important thing is good handwriting and spelling and punctuation"), it was generally possible to classify them under one heading. Where a list of items was given

("...neatness, spelling, grammar and imagination"), an attempt was made to classify the reply according to the predominant emphasis.

4.143 Broad areas of consensus emerged among responses: important qualities in writing, as perceived by 15 year olds, ranged from prescriptions about the surface features of neatness, spelling and punctuation, to statements about the role of writing in self-expression and personal satisfaction. A minority of pupils saw writing as a vehicle for further learning or for future employment. Pupils who implicitly gave priority to matters of style tended to stress concision and accuracy of expression, overall fluency, wide vocabulary and appropriate layout of written work. The communicative function of writing was instanced by pupils who stated the need to engage a reader's interest and to convey ideas and opinions. Specific references to the importance of the imagination were rare in comparison with the apparent pre-dilection for 'imaginative writing' noted in the responses to the other questions asked. Relatively few pupils made references to the importance of writing as an information storage system, as a cultural record or, concomitantly, to the possible division of labour between speech and writing in language generally.

4.144 The clear sex differences that were apparent in the pattern of choices among different writing tasks were not replicated in these data, although in several cases, groups of attitude statements were found to correlate significantly with mean writing performance scores. As will be discussed below, there are some grounds for suggesting that pupils' perceptions of 'importance' draw on a different experience of writing than do those of 'enjoyment'.

4.145 Approximately one-third of pupils choose to complete the statement by identifying, as most important, surface features of writing: spelling, neatness, tidiness, together with punctuation and correct grammar (initially the classification attempted to separate neatness/spelling and correct grammar/legibility, but the overlap between these priorities proved too great). Typical of replies in this category were the following:

"... you should write in sensible sentences so people can understand what you have written."

"... write so that everyone can understand you and write neat full capital letters."

"... to have it neat so people can read it and have punctuations."

"... well written and neat sentences, correct spelling, correct punctuation."

"... the grammar, punctuation and important things like that. Also the writing should be as neat as possible."

"... to write in sentences and paragraphs."

"... you must always write in sentences, start with a capital letter and end with a full stop, and always spell correctly."

4.146 Replies such as the above accounted for the largest single group of responses. The view of writing which united this group appeared to be one which equated ease of understanding with the correct use of the written code; presentation was mainly conceived of in terms of legible handwriting. References were not made to the con-

tent or purpose of the writing. The focus of these replies contrasted with the majority view (expressed in the context of questions one and two) as to what constituted enjoyment and, by extension, what was *personally* important about writing. Judging by the responses to questions one and two, it appeared that the most valued aspects of writing centred around the enjoyment of particular types of subject matter and the freedom to write in certain modes. Only a minority of pupils instanced areas of *enjoyment* that related solely to correct grammar or to surface features of presentation, but many more cited them when 'absolute' importance was in question.

4.147 There was found to be a significant difference in mean writing performance score associated with statements emphasising mechanical accuracy: in general, pupils' writing performance scores were lower when they responded in this way (49.4) than when they did not (51.8).

4.148 A second, but smaller group of replies which showed a negative correlation with mean writing performance scores was that which comprises statements about the utility of writing, both as a tool for learning, or literacy skills, and for future life, particularly job applications. Around 8 per cent of pupils commented:

"... that you can write to apply for jobs and other things which you couldn't if you couldn't write."

"... because you have to be able to write to live."

"... it gives you the sense to write e.g. shopping lists, school and looking for a job because you have to."

"... you can write letters to your superiors and to the council. There is more chance of getting a job if you can write."

"... that you learn things better when you write them down."

The mean writing performance score of pupils expressing these attitudes was 48.0, as compared with others in the sample (51.2).

4.149 The second largest group of replies constituted a less instrumental view of writing, taking into account questions of stylistic choice relevant to a piece of writing in its entirety. In all, about 18 per cent of pupils isolated as important matters to do with the way something was written. Two sub-groups were distinguished: about one in ten pupils made reference to the need for writing to be concise and accurate in expression; slightly fewer pupils saw as most important the achievement of stylistic fluency, the use of a wide vocabulary and the overall layout of written work. The comments of both groups are represented by the following quotations:

"... to get to the point and say what you think and don't try and use long words. Simple is often very effective."

"... concise writing, i.e. getting to the point very quickly."

"... that you are clear, precise and that you make your work as interesting as possible by good laying out of facts etc."

"... the ability to express yourself, knowing the meaning of words and using them in a good context and punctuating so your writing doesn't stop abruptly in places but flows on interestingly and makes sense."

"... using a wide vocabulary of words, using descriptive words and phrases. I think you should also take your time and spend a few minutes beforehand thinking about your topic and the way in which you should present your work."

4.150 In contrast to the other two groups of replies discussed, these categories of 'recommendations' were found to be associated with pupils who achieved significantly higher mean writing performance scores. (52.1 and 52.9 as compared with 50.8 and 50.7 respectively.)

4.151 In all, it could be said that about half the sub-sample specified as important features to do with the organisation of the written language, broadly or narrowly conceived. It was evident, especially in the replies just cited, that a focus on style was not dissociated from a wider sense of purpose in writing, but proportionately fewer pupils spontaneously nominated the purpose of writing as its most important characteristic. Approximately one in ten pupils gave replies which indicated that for them, the most important feature of writing was that it was a means of self expression (12 per cent) or that its main aims should be communicative (12 per cent). These points of view are represented below:

"... to say what you feel and why you feel it, be creative and express yourself, not to be afraid of what others may think."

"... to express yourself using the fullness of your ideas to get across your meaning."

"... putting forward your own views on any subject and trying to put forward your own personality in whatever you write."

"... to put on paper one's true feelings and memories."

"... it provides a form of communication which can be read by another person, it provides ideas which can be passed through writing."

"... to be understood, to communicate with people far away and to say what you think."

"... as a form of communication because if we never wrote anything I wouldn't be able to do this paper because there wouldn't be one."

"... get your reader interested and believing that he is in the place where the writing takes him."

"... being able to exchange the thoughts which are encircling your mind and get them on paper without losing any of their initial energy and meaning."

4.152 Pupils who gave prominence to expressive/communicative aims in writing tended to be those who also distinguished the roles of speech and writing in serving these ends. Thus, the advantage of "being able to say what you think without being interrupted" was seen as important in writing, as was the (allegedly) greater scope afforded for honesty "writing... without being afraid"; "you don't feel embarrassed about what you write".

4.153 Approximately 10 per cent of the total sample focussed their attention on the enjoyment of the writer as being the most important consideration in writing:

"... that the person who writes it gets the satisfaction and pleasure out of reading something created by themselves from their own mind."

"... the fact that you get enjoyment out of reading the story you have written and if you don't then the story is not very good."

"... that the person who has written it is pleased with the end product."

"... that you enjoy doing it and get great satisfaction from the finished piece of work."

4.154 Implicitly or explicitly, the last three groups of responses discussed expressed a positive commitment to writing as something which engaged with wider areas of experience than those bounded by prescriptive grammar. The mean scores of pupils in each of these three groups were found to be significantly higher than were those not voicing such opinions: 52.6; 52.5; 52.9; against 50.7 in all three cases.

4.155 As mentioned earlier, few pupils isolated 'imagination' as important in writing (for example, "... to allow myself to use my imagination to escape into a different world"; "... that we write stories that are made up in our mind, and we dream about"). Neither did 'knowledge of subject matter' appear as a widespread concern ("... important to write about things you know about"). Just over 2 per cent of replies were classified in each category. In view of the emphasis that both these areas were given in the reasons provided by pupils to explain their liking for particular forms of writing, it was not anticipated that they would be so seldom mentioned in the context of 'importance'. With regard to 'knowledge of subject matter', it is possibly the case that this criterion was largely subsumed under statements about the need for writing to truly reflect the writers' beliefs. Similarly, scattered references to 'creativity' in writing might conceivably have been equated with 'imagination'. Nevertheless, as the whole analysis of responses has indicated, there seems to be something of a gap between 15 year olds' public views on important features of writing and the personal value which they attached to individual writing tasks.

Summary

4.156 When pupils were asked to respond to a question about the writing which they had preferred in the context of the APU booklet, the majority nominated a task explaining how to perform a familiar activity. However, when the replies were separated for individual booklets, and for boys and girls, it was found that, while boys' choices remained constant across the two booklets, girls' preferences altered when a quite different type of writing (a story designed for young children) was offered.

4.157 The lines along which these particular choices were divided — factual/non-factual, expository/narrative — were again evident in the data gathered about general preferences for different types of writing tasks amongst each sex group. Significantly different preferences were noted, echoing those found in successive surveys of attitudes to reading.

4.158 Where negative attitudes were expressed, or where no response was made to a question, boys outnumbered girls significantly. Although data from open-ended

questions cannot be used as a predictor of writing performance, (a number of unknown variables may also affect the performance), in both 1979 and 1980, groups of pupils expressing negative attitudes, or failing to articulate their opinions about writing, were found to be groups with significantly lower mean writing performance scores.

4.159 Pupils were also asked to complete a statement defining what they considered to be the most important quality of writing. One-third of pupils gave replies relating to correct spelling, grammar and punctuation; for these pupils, 'tidyness' was also an important consideration. Less than 20 per cent of pupils suggested that it was important for writing to be concise, fluent in style and well-organised. About one in ten pupils saw as important the role of writing in self-expression, communication with others or as source of personal satisfaction.

4.160 There were no apparent sex differences in the way in which these priorities were identified. There seemed to be some disparity between areas of enjoyment in writing and those of importance, as perceived by 15 year old pupils. The question about the 'importance' of writing appeared to draw more upon received opinion than upon most pupils' personal judgements of writing.

5. Pupils' performance in relation to background variables: reading

Linking pupils' reading performance across the tests

5.1 In Chapter 2, the information given about the proportions of pupils who answered questions about released reading materials appropriately or correctly related specifically to the performance of the groups of pupils who completed those booklets. However, because of the way in which the booklets were distributed across the sample of pupils in the reading survey, it was also possible to draw more general conclusions about the way in which pupils in the age group would be likely to perform with respect to these questions. For example, in considering the answers given to questions asked about *The flying machine* the following general conclusions can be drawn. We can be 95 per cent certain that questions with a facility value of 0.40 could be answered correctly by between 34 per cent and 46 per cent of pupils in the age group.¹ Again, questions with a facility value of 0.60 could be answered correctly by between 54 per cent and 66 per cent, and questions with a facility value of 0.80 by between 75 per cent and 85 per cent of the pupils in the age group.

¹ The term *facility value* was defined in paragraph 2.15

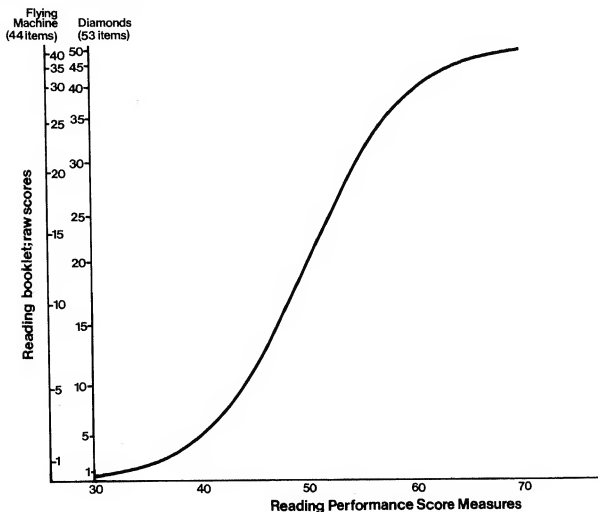
5.2 The performance of pupils in the sample across the whole range of booklets is briefly discussed in the following paragraphs. Before this issue is dealt with, however, it is necessary to refer to the method by which the questions in the different test booklets were linked so that the performance of all the pupils in the sample could be related to a common scale of measurement.

5.3 All pupils who participated in the reading survey were asked to read a common passage and to complete the text where necessary. The responses given by each pupil to the common exercise were made use of to link the items in each of the different tests in such a way as to locate them on a common scale of measurement. That is to say, it is possible to establish the relative difficulty of the items in the common test and each individual test. After this calibration process, each item is assigned an index of difficulty. The tests are then linked by ensuring that the common items are assigned the same difficulty indices. The other test items are then adjusted so as to be 'in line' with the common items. The technical procedures by which this is accomplished are described in full in the technical supplement on the analysis of APU monitoring in language.

5.4 The scaling and linking of test items means that it is possible to take account of the relative difficulties of the items in assigning scaled reading scores to pupils who completed the tests. For example, pupils who completed three of the forty-four questions relating to *The flying machine* earned a scaled score of 40. Pupils who completed thirteen questions appropriately, a scaled score of 50; and those who answered thirty-one questions correctly, a scaled score of 60. On an easier test, such as *Diamonds booklet 7*, particular raw scores translated to lower scaled scores. In this case, for example, a pupil would have had to answer twenty-one questions out of fifty-three correctly to obtain a scaled score of 50. The relationship between

the scaled scores or measures assigned to pupils and the raw scores they obtained on the two booklets referred to are shown in the following figure.

Figure 5.1 *Relationship between raw scores on two reading booklets and scaled performance measures*



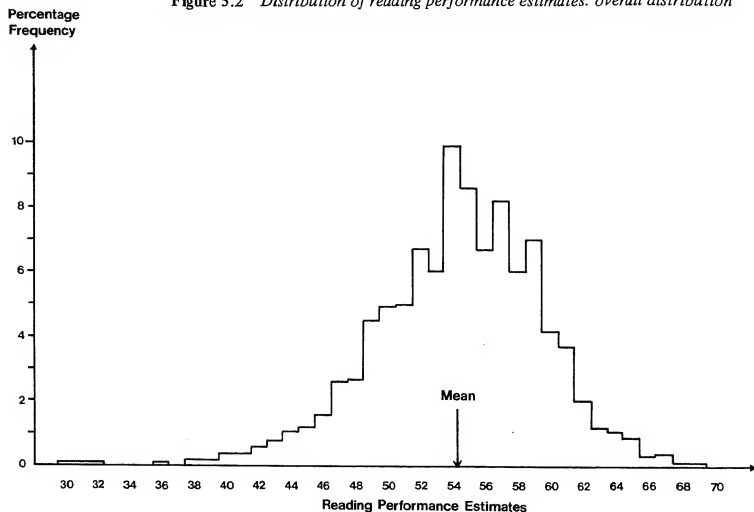
5.5 The purpose of the scaled scores thus derived is to allow for comparison to be made between the relative performance of groups of pupils participating in the APU surveys. The fact that there were a number of reading booklets which were used in both the 1979 and 1980 secondary surveys makes it possible to relate the results obtained in the two surveys. An analysis of the results obtained in successive surveys will be included in the retrospective report which is to be prepared at the end of the five year period of monitoring.

5.6 The general distribution of scaled scores over the eight reading booklets used in the 1980 survey is shown in Figure 5.2.

The background variables

Pupils

5.7 As was pointed out in Chapter 1, the amount of information about pupils and schools that is available as background to the results was, by design, limited. For each pupil, information was obtained about age, sex and whether or not English

Figure 5.2 *Distribution of reading performance estimates: overall distribution*

was the first or second language spoken. The language performance of pupils taking different combinations of science subjects was also investigated on behalf of the APU science monitoring team based at the University of Leeds.

¹ See Appendix 1 Table A.4

5.8 The total number of pupils¹ who participated in the reading survey was 7,556 (6,738 reading, plus 818 linking). The answer scripts from 85 of these pupils could not be used, so the maximum number contributing to any of the results reported here was 7,471.

Schools

5.9 For schools in the maintained sector (86.7 per cent of the sample), information about school size and size of 15-plus age group was available, as were statistics about the proportion of pupils taking free school meals and the pupil/teacher ratio within the school. All schools in the sample were classified according to sex of school (single sex or mixed). A total of 349 schools participated in the reading survey.

5.10 Variables relating to schools were sub-categorised as follows:

Proportion of pupils taking free school meals	5.9 per cent and below
(maintained schools)	6.0 per cent – 13.9 per cent
	14.0 per cent and above
Size of 15-plus age group	1 – 80 pupils
(maintained schools)	81 – 160 pupils
	161 – 240 pupils
	241 pupils and above

Pupil/teacher ratio	14.9 pupils or fewer per teacher
(maintained schools in	15 – 17.4 pupils per teacher
England and Wales)	17.5 pupils and above per teacher
Size of school	1 – 600 pupils
(maintained schools)	601 – 1000 pupils
	1001 pupils and above
Sex of pupils in school	Girls
	Boys
	Mixed

Geographical position

5.11 Five regional divisions were employed for the purposes of the survey: three regions within England (the North, the Midlands and the South), plus Wales and Northern Ireland. Schools in the regions of England and Wales were classified according to metropolitan or non-metropolitan location. In Northern Ireland, the

Figure 5.3 Map showing the three regional divisions of England and Wales

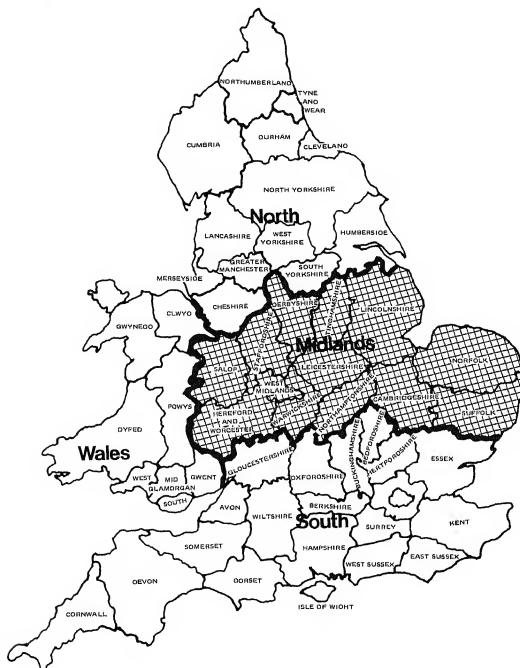
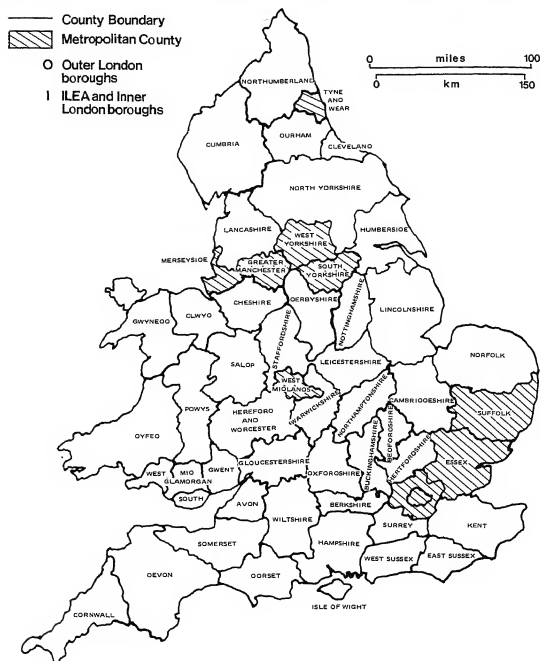
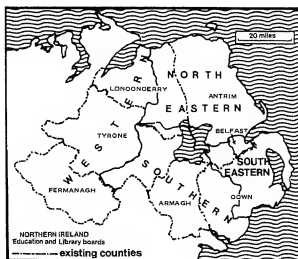


Figure 5.4 *The metropolitan and non-metropolitan counties of England and Wales*Figure 5.5 *Northern Ireland Education and Library Boards*

— · — · — Existing counties

The boundaries of Northern Ireland's Education and Library Boards are super-imposed on the boundaries of the previous local education authorities. The Education and Library Boards succeeded the former education authorities on 1st October 1973.



relevant locational boundaries are those of the Education and Library Boards. The geographical variables are illustrated in Figures 5.3, 5.4 and 5.5.

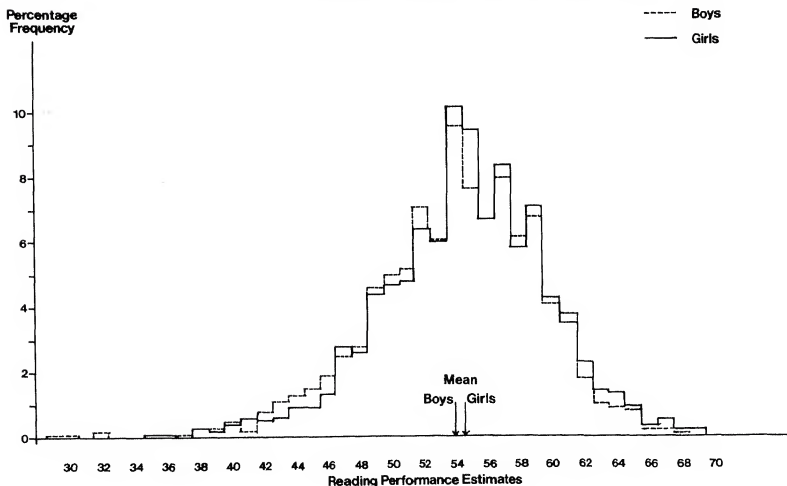
5.12 In the following discussion, the results of the reading survey are reported for each of the sub-categories of the variables referred to and summarised in Figure 5.11 at the end of this chapter. In both this chapter and the next, attention is drawn to cases where a statistically significant difference, at the 5 per cent level or beyond, exists between scores: this is the sense in which the term 'significant' is used throughout Chapters 5 and 6.

Pupil variable 1: differences in performance between boys and girls

5.13 50.5 per cent of the sample (3,775) were boys and 49.5 per cent (3,696) were girls. Although the overall distribution of scaled scores attributed to the two groups was similar, a statistically significant difference was evident in their mean scores: boys 54.0, girls 54.6. This difference is illustrated in Fig. 5.6.

5.14 The scores of boys and girls in the various regions are shown in Table 5.1. While nationally, girls had a significantly higher score than boys, the only separate region in which this was true was the Midlands. The difference in performance in

Figure 5.6 *Distribution of reading performance estimates: boys and girls*



Northern Ireland, though apparently just as large, failed to reach statistical significance because of the smaller number of pupils involved.

Table 5.1 *Mean scores of boys and girls within regions*

Region	Boys	Girls
North	53.7	53.6
Midlands	53.6	54.8
South	54.6	55.1
Wales	53.5	53.9
Northern Ireland	53.3	54.5

Pupil variable 2: speakers of English as a first or second language

5.15 Information was obtained from headteachers about whether pupils spoke English as a first or second language. Relatively few pupils (268, or 3.6 per cent) were said to speak English as a second language. Of these the largest sub-groups were speakers of Welsh (144), Punjabi (22), Gujarati (17) and Urdu (8); 43 pupils spoke European languages other than those already mentioned.

5.16 In the total sample, the mean reading score of native speakers of English (54.3) was significantly higher than the mean score of pupils who spoke English as a second language (51.8.)

5.17 The proportions of second language speakers in the different regions varied considerably: North (2 per cent), Midlands (2 per cent), South (4 per cent) and Wales (12 per cent). There were no pupils who spoke English as a second language in the sample in Northern Ireland.

5.18 In Wales, pupils who spoke English as a first language obtained a mean score of 53.9, and those who spoke English as a second language, a mean score of 52.5, but this difference was not statistically significant.

5.19 Information was also obtained about whether pupils who spoke English as a second language were able to read and write their first language. Almost all pupils in Wales who spoke English as a second language were literate in Welsh. In the total sample, pupils who were also able to read their first language had a mean English reading score of 52.5 and those who were able to write their first language a mean score of 52.6. The mean score of pupils who could not read their first language was 51.4 and that of pupils who could not write their first language was also 51.4. None of these differences was statistically significant.

Pupil variable 3: science curriculum groups

5.20 The APU science monitoring team based at the University of Leeds, requested that the language performance of pupils taking different combinations of science subjects should be investigated so that evidence about their relative performance

would be available. The number of combinations of science subjects studied was large, so the eleven most frequent combinations were regarded as separate curriculum groups. A twelfth category comprised pupils taking other combinations of science subjects.

5.21 Pupils taking physics, chemistry and biology achieved the highest mean score (58.4), and they were followed by pupils studying combinations of two of these subjects: chemistry and biology (56.9); physics and biology (56.8); and chemistry and physics (56.7). The lowest mean scores were obtained by pupils studying general science (50.4) and any science course other than those specified (49.6).

5.22 Girls obtained significantly higher mean scores than boys in all subject combinations except in the category relating to pupils taking science courses other than those listed. The proportions of the total sample of pupils taking different subject combinations are shown in Table 5.2. The mean reading scores of boys and girls and the proportions taking different subject combinations are given in Table 5.3.

Table 5.2 *Proportions of pupils taking subject combinations in science*

	Reading	Writing
Physics	9.3	10.0
Chemistry	2.6	2.3
Biology	16.6	16.4
General science	9.4	9.9
Chemistry and physics	7.1	7.0
Chemistry and biology	5.3	4.6
Biology and physics	4.5	5.1
Biology, chemistry and physics	9.9	9.8
Human biology	4.4	4.0
Another science subject	3.9	4.2
Other	17.8	17.8
None	9.2	8.3

Table 5.3 *Mean reading scores and proportions of boys and girls taking science subjects*

Science subjects	Girls	% of sample ¹	Boys	% of sample ¹
Physics	56.7	14	54.6	86
Chemistry	55.9	52	53.2	48
Biology	55.3	82	53.8	18
General science	51.3	46	49.6	54
Chemistry and physics	58.5	14	56.4	86
Chemistry and biology	57.3	69	55.8	31
Biology and physics	58.1	34	56.1	66
Biology, chemistry and physics	59.2	38	57.9	62
Human biology	53.4	85	50.5	15
Another science subject	49.7	41	49.5	59
Other	55.4	44	53.5	56
None	52.5	62	50.6	38

¹ In this and other tables in this chapter, the proportions are unweighted.

School variable 1: single sex and mixed schools

5.23 The performance differences noted between boys and girls in the data about sex of pupil were not straightforwardly reflected when the schools attended by pupils in the survey were grouped according to sex (boys, girls, mixed). In the total sample, the mean scores of girls in single sex schools (56.2) and of boys in single sex schools (55.7) were both significantly higher than the mean scores of girls in co-educational schools (54.1) and of boys in such schools (53.5).

5.24 In interpreting these results, it needs to be remembered that, particularly in England and Wales, schools which select pupils on the basis of sex are frequently those which also select on the basis of academic ability.

5.25 In Northern Ireland, by contrast, approximately 55 per cent of schools are single sex, a proportion which includes both grammar and modern schools. While a similar trend was observed for the mean scores of pupils within single sex schools (girls 55.5, boys 54.7) to be higher than those in mixed schools (girls 53.5, boys 52.4), these differences were not significant.

5.26 Sex differences in reading performance were also noted in the cross-tabulation of size of 15-plus age group within schools, and the sex of the pupils concerned. The mean score (52.2) for boys in schools with 80 pupils and below in the age group was significantly lower than that of boys in all other size of age group sub-categories. (The size of age group variable is further discussed in paragraphs 5.36 to 5.37.)

Table 5.4 *Size of age group by sex mean reading performance scores (maintained schools only)*

Size of age group category	Sex of pupils	
	Boys	Girls
1 — 80	52.2	55.5
81 — 160	54.0	54.9
161 — 240	53.7	54.1
241+	53.8	54.0

School variable 2: the proportion of pupils taking free school meals (maintained schools only)

5.27 This variable was assumed to provide a broad indication of the relative affluence of each school's catchment area. In previous surveys, the information about free school meals was categorised by expressing the number of pupils in a school taking free school meals on a particular day as a percentage of the *number of pupils taking school dinners* on that day. However, between 1979 and 1980, the proportion of pupils taking school meals, free or not, dropped considerably, following the 1980 Education Act, which abolished the statutory free school meals provision. Until

the end of the 1979/80 school year, all LEAs in England, Wales and Northern Ireland operated the same criteria for deciding which children should receive free meals. However, from the start of the 1980/81 school year, LEAs have had the power to decide their own criteria. In view of this variation, no attempt will be made to cross-tabulate this variable with others.

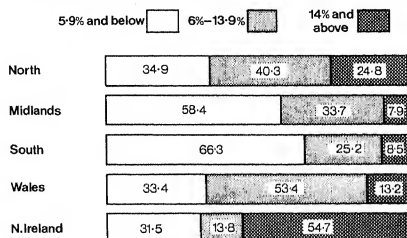
5.28 Because of these developments, a different procedure for calculating free schools meals provision has been adopted. In this report, schools are sub-categorised according to the number of pupils in the school taking free school meals on a particular day expressed as a percentage of *the total number of pupils in the school*. Table 5.5 illustrates the differences in the proportions of free school meals as used for reporting purposes in the 1979 and the 1980 surveys.

Table 5.5 *Free school meals' categories*

1979		1980	
Number taking free meals as percentage of pupils having school dinners.	14.9% and below 15–29.9% 30% and above	Number taking free meals as percentage of all pupils in school.	5.9% and below 6–13.9% 14% and above

5.29 The proportion of pupils in the reading survey entitled to free school meals in the three sub-categories distinguished in relation to this variable in different regions is given in the following figure. Approximately 7 per cent of schools provided no information about the numbers of school meals taken.

Figure 5.7 *Proportions of pupils taking free school meals within regions (maintained schools only)*



5.30 The mean score of pupils in schools in which fewer than 6 per cent of pupils were entitled to free school meals was significantly higher than the mean scores of pupils in the two other sub-categories of free school meal entitlement. The mean score of pupils in schools with the highest free school meal entitlement was significantly lower than that of pupils in schools in the middle category. These results are shown in Table 5.6.

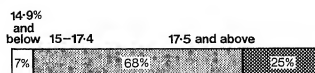
Table 5.6 *Free school meals' categories, with proportions of pupils falling into them and their mean scores (maintained schools only)*

Free school meals	Proportion of Pupils	Mean score
5.9% and below	47%	55.0
6–13.9%	33%	53.3
14% and above	20%	52.6

School variable 3: pupil/teacher ratio (maintained schools only in England and Wales)

5.31 Pupil/teacher ratio is calculated by dividing the number of pupils by the number of teachers (or full-time equivalent) in the school. The PTRs should not be interpreted as an index of the size of classes or of teaching groups in a school.¹ Class sizes are generally higher, since all teachers do not teach all the time in a school. For example, some teachers and all headteachers have many administrative duties; preparation and marking of work may take varying amounts of time away from contact hours with pupils; groups for specialist teaching may be used for certain subjects, and classes may be combined or split up for certain periods. In addition, PTRs in some districts of an authority may vary from those in the rest of the authority as a result of fluctuations in the local population or in accordance with policies about the designation of 'educational priority areas', such as those operated by ILEA.²

5.32 Three sub-categories of PTR are used by the DES with reference to secondary schools. Figure 5.8 illustrates the proportion of pupils in the sample in each category.

Figure 5.8 *Pupil/teacher ratio categories, with proportions of pupils (maintained schools in England and Wales)*

5.33 In the total sample, there were no significant differences between the mean scores of pupils (53.6, 54.1, 54.1 respectively) in the three PTR sub-categories. These broadly derived results are not however an indication that staffing allocation has no effect on pupil performance. The cross tabulation of PTR data with other variables served to identify other factors which, in interaction with pupil/teacher ratio, related to significant performance differences. In this survey, these variables were size of age group, region and location of school.

5.34 As stated above, geographical differences were evident in the PTR data. In the South of England, pupils in schools with the lowest pupil/teacher ratio achieved a mean score significantly lower than that of pupils in similarly classified schools in the North, and also significantly lower than that of pupils in schools with higher pupil/teacher ratios in the South. These differences are shown in Table 5.7.

Pupil/teacher ratio by region

Table 5.7 *Pupil/teacher ratio by region (maintained schools only)*

Pupil/teacher ratio	Region			
	North	Midlands	South	Wales
14.9 and below	55.1	54.9	51.8	52.5
15–17.4	53.2	53.9	54.9	53.4
17.5 and above	53.1	54.0	54.7	54.4

Pupil/teacher ratio by location (maintained schools in England only)

5.35 By cross tabulating pupil/teacher ratio with information about the location of schools in metropolitan or non-metropolitan areas, it is possible to further analyse the apparently anomalous result of low performance in association with low pupil/teacher ratio. As Table 5.8 shows, when low pupil/teacher ratios were defined in non-metropolitan areas, the mean score of pupils was significantly higher than that of pupils in metropolitan schools with equivalent ratios, and also higher than that of pupils in non-metropolitan schools with higher PTRs. Taken together, these data appear to suggest that the positive effects of more generous staffing ratios are to a degree affected by the locality of a school. Where generous staffing ratios operate in metropolitan areas, factors special to the needs of inner city schools would need to be taken account of in assessing the performance of pupils in these schools.

Table 5.8 *Pupil/teacher ratio by location (maintained schools in England only)*

Pupil/teacher ratio	Location	
	Non-metropolitan	Metropolitan
14.9 and below	56.5	52.7
15–17.4	54.3	53.6
17.4 and above	54.3	53.0

School variable 4: size of 15+ age group (maintained schools only)

5.36 Schools in the sample were classified according to the number of pupils aged 15 and over at the time of the survey. The proportion of schools in each of the four divisions thus employed is shown in Figure 5.9.

Figure 5.9 *Age group categories and proportions of schools (maintained schools only)*

5.37 No significant differences were noted between the mean scores (54.4, 54.4, 53.9, 53.9) calculated in relation to this variable alone, but when low pupil/teacher ratio was associated with small age group sizes, and when higher pupil/teacher ratio was associated with the largest sub-category of age group, the mean scores of pupils

were found to be significantly higher. These differences are shown in Table 5.9. A related factor in the conjunction of high PTR and large 15-plus age group appeared to be the presence of schools with pupils up to the age of 18.

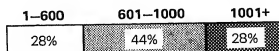
Table 5.9 *Mean reading performance scores by size of age group and PTR (maintained schools only in England and Wales)*

Size of age group	Pupil/teacher ratio		
	14.9 and below	15–17.4	17.5 and above
1–80	57.1	53.3	52.7
81–160	57.5	54.7	53.4
161–240	53.7	53.9	54.0
241+	52.2	53.8	55.0

School variable 5: size of school (maintained schools only)

5.38 Schools were sub-categorised into three groups within this variable. The size of the sub-categories used is shown in Figure 5.10. The mean scores of pupils in the three groups of schools were 54.6, 54.4 and 54.1 respectively. No significant differences were evident between these scores.

Figure 5.10 *Size of school categories with proportion of pupils (maintained schools only)*



Geographical variable 1: location (England only)

5.39 In England, 63.9 per cent of the sample attended schools in counties classified as non-metropolitan and 36.1 per cent schools in metropolitan counties. The non-metropolitan/metropolitan distinction does not necessarily reflect a rural/urban classification. Metropolitan counties may include rural areas, and non-metropolitan counties may incorporate towns and conurbations.¹ Wales and Northern Ireland have no metropolitan counties, although they include urban conurbations of considerable size.

5.40 The difference between the mean score of pupils in non-metropolitan counties (54.8) and that of pupils in metropolitan counties (53.6) was significant.

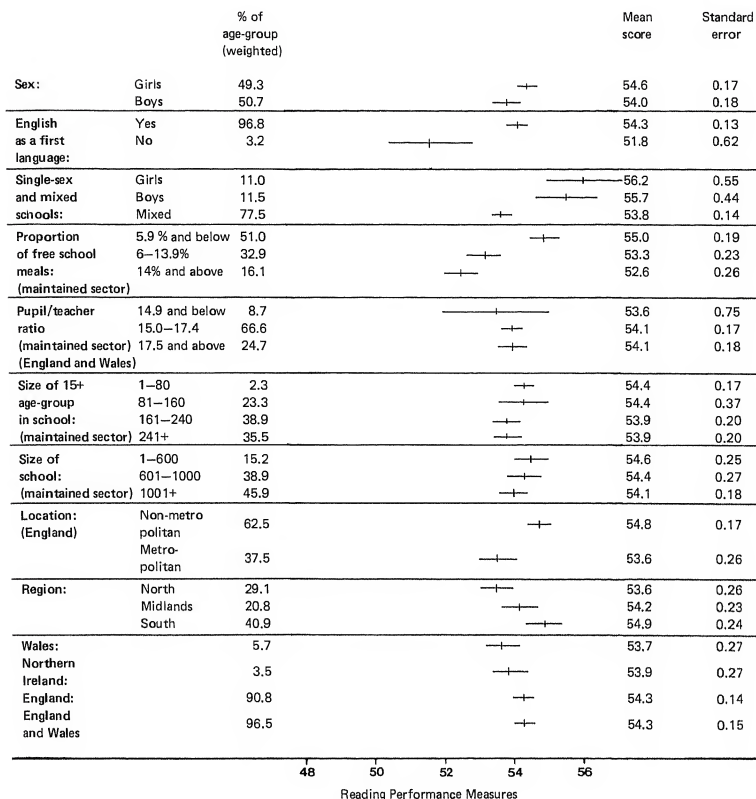
Geographical variable 2: region

5.41 The differences in performance of pupils in the five regions are shown in Figure 5.11. The mean score of pupils in the South (54.9) was significantly higher

¹The distinction is based on the 1979 Local Government Act and to some extent reflects purely historical divisions. Details of the local authorities classified in this way are given in Appendix 1 and shown in Figure 5.4.

than the mean score of pupils in the other four regions. The mean scores of pupils in the other regions were: Midlands (54.2), North (53.6), Wales (53.7) and Northern Ireland (53.9).

Figure 5.11 Summary chart – reading performance



Summary chart

5.42 The preceding chart (Figure 5.11), summarises the results reported in this chapter. For each mean score, 95 per cent confidence limits are shown as horizontal bars projecting from the mean score point. There is only a 5 per cent chance that the 'true' mean scores, which would have resulted from testing every 15 year old and not just a sample, lie outside these confidence limits. Where there is only a small overlap, or none at all, between two sets of confidence limits within a variable, the difference between the mean scores concerned is likely to be statistically significant at the 5 per cent level or beyond. Whether or not the differences are *educationally* significant cannot be determined by reference to statistical data alone.

5.43 The percentages of the sample shown against each sub-category are *weighted*. That is, they represent the proportions of children in the *total population* of 15 year olds in the country falling into the sub-categories. They therefore differ from those stated in the body of this chapter, where *unweighted* proportions, namely the proportions of children in the *sample* falling into the categories, were given (the process whereby weighing factors were applied to each pupil's score where necessary is described in Appendix I).

6. Pupils' performance in relation to background variables: writing

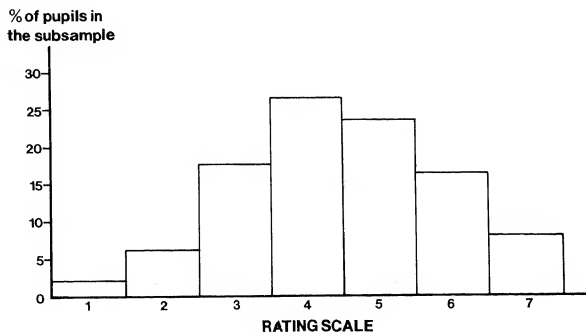
Linking pupils' performance across the tasks

6.1 The combination of tasks included in the writing booklets used in the survey was intended to be representative of the range of written work that takes place in schools, bearing in mind the variety of purposes for which 15 year olds might be asked to write, and the different readers they might anticipate for their work. Detailed analysis of performance in relation to two of these tasks was given in Chapter 4, together with an outline of the marking schemes used.

6.2 The performance of pupils across the whole range of tasks and the means by which separate tasks were linked, will now be briefly discussed. An illustration of the distribution of impression marks, on the scale 1–7, with respect to the eleven writing tasks used is given in Figure 6.1. The figure is based on raw scores assigned to pupils derived from the analyses of 3982 writing booklets. In the markers' judgement, 2.2 per cent of pupils produced writing which was extremely poor for the age group concerned. Included in this category were scripts of one line or so, where the writer's response was virtually unintelligible. At the other end of the scale, 7.4 per cent of scripts were awarded the highest mark. In such cases, the markers were recording their impression that this was work of outstanding quality.

6.3 The distribution of raw scores on the scale 1–5 with respect to the five sets of analytic criteria over the complete range of writing tasks can be similarly illustrated.¹

Figure 6.1 *Distribution of ratings: impression marking*



¹The illustrations are given in Appendix 3, Figures A3.1–A3.5

For analytic marking, a 10 per cent sub-sample of the total number of booklets was used.

6.4 Though providing a certain amount of descriptive information, the overall distribution of impression or analytic marks cannot of itself be used as a reliable measure of pupil performance from survey to survey. This is because the distribution of raw scores reflects the relative difficulty of the particular set of writing tasks in any one survey. However, it is possible to transform raw scores onto a common scale. Additionally, the scaling procedures used make it possible to take account of the relative difficulty of each writing task and of the relative leniency/stringency of the marker, in assigning a writing performance measure to pupils (full details of the research design for writing assessment are given in the technical supplement on the analysis of APU monitoring in language).

6.5 As was the case with the assessment of reading, pupils who were given marks with reference to the different tasks could be assigned an estimated writing performance measure. For example, a pupil assigned an impression mark of 4 on the task that involved writing a short story for 4 to 5 year olds would, by the procedures employed, be assigned a writing performance measure of 49.2. A pupil given an impression mark of 1 on the same task would have a performance measure of 36.8 and a pupil given a mark of 7, a performance measure of 61.5.

6.6 The way in which the relative difficulty of the task is taken account of in assigning such performance measures may be illustrated by reference to Table 6.1. The average performance measures of pupils assigned marks on the scale 1-7 is indicated in relation to the two extended writing tasks discussed in Chapter 4, together with the relative difficulty of each task (the higher the number, the more difficult the task).

Table 6.1 *Impression marking: performance measures arranged for each rating scale point*

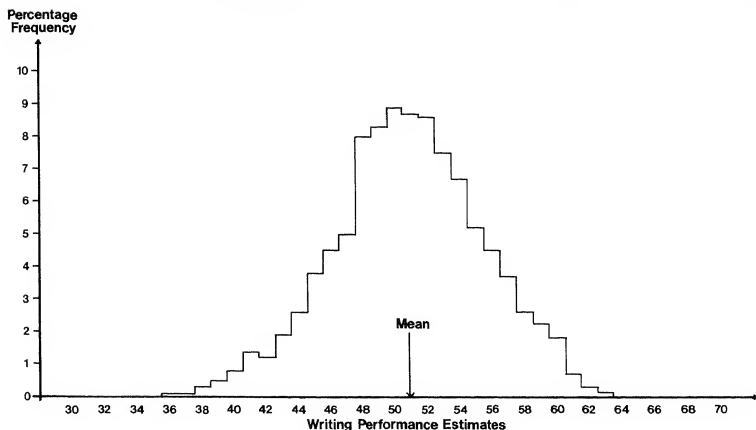
Task	Difficulty level	Scale						
		1	2	3	4	5	6	7
Children's story	49.2	36.8	41.8	46.0	49.2	52.3	56.5	61.5
Three interesting things	50.1	37.7	42.7	46.9	50.1	53.2	57.4	62.4

6.7 The overall distribution of scaled scores for impression marking across the full range of extended writing tasks is shown in Figure 6.2.

Correlations between the measures used

6.8 Measures of performance based on impression and analytic marking were intercorrelated. As was the case in the 1979 secondary survey, the highest correlation was evident between scaled scores derived from impression marking and those relating to the *content* and *organisation* of what was written (0.75 and 0.70 respectively). Further information about the intercorrelations between the impression marks and analytic scores is given in Appendix 4.

Figure 6.2 *Distribution of writing performance estimates (impression marking): overall distribution*



The background variables

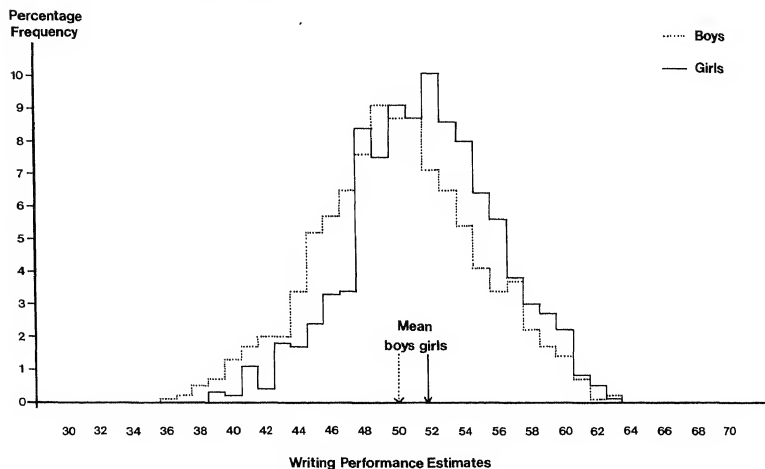
6.9 Pupils' scores in the writing survey are discussed in relation to the same background variables as were used in the discussion of reading performance in the previous chapter. The reader is referred to paragraphs 5.7 to 5.12, for details of the variables about the pupils, schools and geographical location. It may be useful to repeat, however, that, as in the previous chapter, differences in mean scores that are referred to as *significant* are significant at the 5 per cent level or above; i.e. such a difference would occur by chance five times in every hundred.

6.10 The information in this chapter about pupils' performance in writing is based on the data derived from the impression marking procedures, unless otherwise stated.

Pupil variable 1: differences in performance between boys and girls

6.11 49 per cent of the pupils who took part in the writing survey were girls and 51 per cent were boys. The mean score of the girls (51.7) was significantly higher than that of the boys (50.0). This difference is illustrated in Figure 6.3.

Figure 6.3 *Distribution of writing performance estimates (impression marking): boys and girls*



6.12 This pattern was the same in each region, except for Northern Ireland where, however, the same trend was apparent. Differences in the performance of boys and girls in the various regions are shown in Table 6.2.

Table 6.2 *Mean scores of boys and girls within regions*

Region	Boys	Girls
North	49.9	50.9
Midlands	48.9	51.9
South	50.3	52.2
Wales	49.8	51.7
Northern Ireland	50.4	51.5

Pupil variable 2: speakers of English as a first or second language

6.13 3.4 per cent of the writing sample were reported to have a first language other than English. The headteachers of a further 0.3 per cent of pupils were unable to provide information about the first language spoken by pupils. Among those who spoke English as a second language, the largest group were speakers of Welsh (82 pupils).

6.14 In England, the mean score of second language speakers of English was 49.6 and that of first language speakers, 50.8. In Wales, the scores were 49.9 and 50.9 respectively. The differences between the mean scores were not significant. There were no pupils in the survey who spoke English as a second language in Northern Ireland.

6.15 In the sample as a whole, speakers of English as a second language who were able to read and write their first language obtained higher scores than those who were not literate in their first language, but the differences between the scores of the two groups were not statistically significant.

Pupil variable 3: science curriculum groups

6.16 Information was collected about the science courses taken by pupils involved in the writing survey as was done for those completing reading booklets. Pupils taking physics, chemistry and biology obtained higher scores than pupils in other curriculum groups (54.1). The mean score of pupils taking chemistry and biology was 53.2, that of pupils taking chemistry and physics, 52.8, and the mean score of those taking physics and biology, 52.3. The lowest mean scores were obtained by pupils taking human biology (50.1), and a science course other than those listed (50.6). The rank order of scores was similar to that obtained in the reading survey.

6.17 Girls obtained significantly higher mean scores than boys in all categories. The mean scores of boys and girls and the proportion of pupils who took the different subject combinations are given in the following table.

Table 6.3 *Mean writing scores and proportions of boys and girls taking science subjects (impression marking)*

Science subjects	Girls	% of sample ¹	Boys	% of sample ¹
Physics	52.8	13	50.5	87
Chemistry	53.5	50	50.7	50
Biology	52.0	84	50.9	16
General science	49.1	42	46.2	58
Chemistry and physics	55.9	15	52.2	85
Chemistry and biology	53.8	67	52.0	33
Biology and physics	53.1	35	51.9	65
Biology, chemistry and physics	55.0	39	53.5	61
Human biology	50.5	88	47.3	12
Another science subject	49.4	38	46.2	62
Other	51.9	43	49.7	57
None	50.8	70	47.4	30

¹ In this and other tables in this chapter, the proportions are unweighted.

School variable 1: single sex and mixed schools

6.18 Differences in the writing performances of boys and girls noted in the previous discussion were also evident when the schools attended by these pupils were grouped according to sex of pupils. The mean score of girls in girls' schools (53.6) was

significantly higher than that of boys in boys' schools (51.8). The mean scores of both girls (51.1) and boys (49.4) in mixed schools, though also significantly different, and in favour of girls, were significantly lower than those of their peer groups in single sex schools.

6.19 In the sample as a whole, approximately 30 per cent of pupils attended single sex schools (15.4 per cent of girls, 14.1 per cent of boys). As was mentioned in the previous chapter, the variable of sex of school tends to interact with school type.

6.20 In Northern Ireland, a higher proportion of pupils in the sample attended single sex schools (45 per cent). There were no significant differences either between the mean score of boys (52.2) and girls (52.0) in single sex schools, or between their scores and those of boys and girls in mixed schools (49.2 and 51.2 respectively).

6.21 In England, the mean score of girls in single sex schools (56.2) was significantly higher than that of girls in mixed schools (54.1), and that of boys in single sex schools (55.7) significantly higher than that of boys in mixed schools (53.5). The mean score of girls in girls' schools was significantly higher than that of boys in boys' schools.

School variable 2: the proportion of pupils taking free school meals (maintained schools only)

6.22 As mentioned in the previous chapter, this variable is taken to provide an indication of the relative affluence of each school's catchment area. Paragraphs 5.27 to 5.28 also pointed out the changes in the way in which the proportional take-up of free school meals has been calculated for this report.

6.23 The proportions of pupils in the writing survey entitled to free school meals in the three sub-categories distinguished in relation to this variable in different regions were given in Figure 5.7.

6.24 As in the reading survey, the mean score of pupils in schools in which fewer than 6 per cent took free school meals was significantly higher than that of pupils in schools in which a higher proportion of pupils were entitled to school meals.

Table 6.4 *Free school meals' categories, with proportions of pupils falling into them and their mean scores*

Free school meals	Proportion of pupils	Mean score
5.9% and below	46.2%	51.4
6–13.9%	33.2%	49.9
14% and above	20.6%	49.6

School variable 3: pupil/teacher ratio (maintained schools only in England and Wales)

6.25 The basis on which PTR is calculated was explained in paragraphs 5.31 to 5.32. The proportion of pupils in the writing survey in each of the three sub-categories employed is shown in Table 6.5.

Table 6.5 *Pupil/teacher ratio categories, with proportions of pupils and their mean writing performance scores (maintained schools in England and Wales)*

Pupil/teacher ratio	Proportion of sample	Mean score
14.9 and below	7.1%	50.6
15–17.4	68.3%	50.6
17.5 and above	24.6%	50.4

There were no significant differences between the mean scores of pupils in the above sub-categories.

School variable 4: size of 15+ age group (maintained schools only)

6.26 Proportions of pupils in each of the four sub-categories distinguished in relation to size of age group within schools are given in Table 6.6.

Table 6.6 *Size of age group categories with proportions of pupils and mean writing performance scores (maintained schools)*

Age group	Proportion of pupils	Mean score
1–80	9.3	51.0
81–160	38.5	50.7
161–240	35.3	50.7
241+	16.9	50.4

6.27 In the overall maintained sample, no significant differences were evident in the mean scores of pupils calculated with reference to these sub-categories. However, when these data were cross-tabulated with region and sex of pupil, significant differences were apparent. It should be noted however, that when the data are thus broken down, the numbers of pupils within each cell are often so small as to make generalisations unjustified.

6.28 In the South of England, pupils in maintained schools with the smallest size of age group achieved a significantly higher mean score (55.5) than pupils in a similar category in other regions. These pupils were all girls and over two-thirds were in selective schools.

6.29 Conversely, in Wales, pupils in maintained schools with 80 pupils and below in the 15-plus age group, had a significantly lower mean score (48.1) than pupils in the other three groups (49.9, 51.3 and 50.4 respectively). Only 11 pupils were sampled within this group, however.

6.30 As in the reading survey, there was a significant performance difference in relation to sex of pupil and size of age group. Boys in schools with 80 pupils and below aged 15-plus obtained a significantly lower score (48.6) than boys in other age group sub-categories. While this result was true of the sample as a whole, within regions, the finding was not clear-cut. For example, in the South of England, the sample did not include any boys in this age group sub-category from the maintained

sector. The small number of boys in Welsh maintained schools with 80 pupils and below aged 15-plus means that performance statistics related to those pupils must be treated with caution. In both the Midlands and the North, the association of smallest age group, sex of pupil and significantly lower mean score related to a small group of boys in schools without sixth forms.

School variable 5: size of school (maintained schools only)

6.31 As in the reading sample, there were no significant differences in the performance of pupils in the three sub-categories of school size. The mean scores of pupils in the three sub-categories are given in the following table.

Table 6.7 *Size of school, proportions of pupils and mean writing performance scores*

Size of school	Proportion of pupils	Mean score
1- 600	27.6%	51.2
601-1000	42.8%	50.8
1000+	29.6%	50.7

6.32 In Northern Ireland, pupils in the smallest schools had a lower mean score (50.2) than pupils in larger schools (mean scores 51.2 and 52.9 respectively), but the differences were not significant.

Geographical variable 1: location (England only)

6.33 In England, 63.9 per cent of the sample attended schools in counties classified as non-metropolitan and 36.1 per cent, schools in metropolitan counties. The basis of this distinction was explained in paragraph 5.39.

6.34 The difference between the mean score of pupils in metropolitan counties (50.4) and that of pupils in non-metropolitan counties (51.0) was not significant.

Geographical variable 2: region

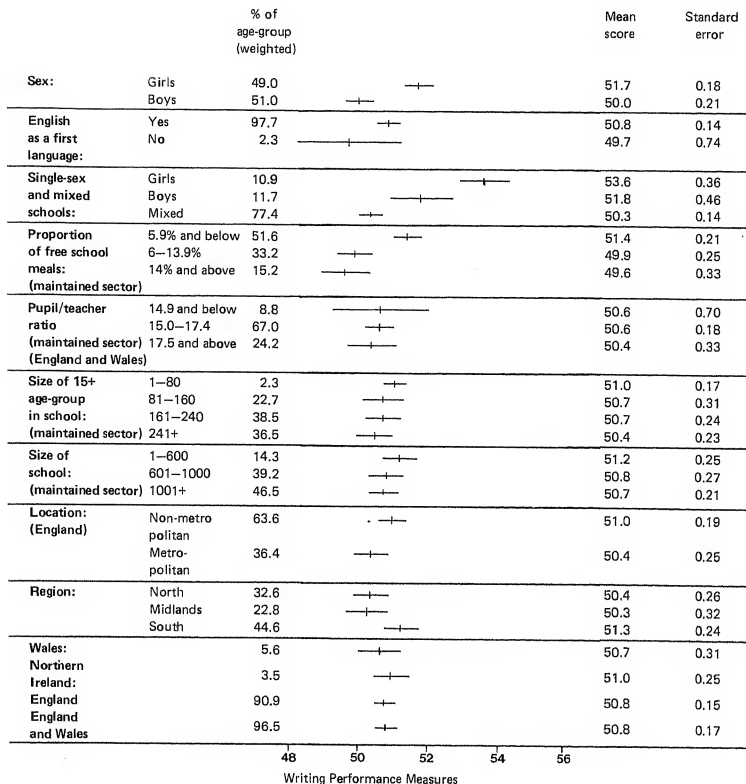
6.35 The differences between the performance of pupils in the five regions are shown in Figure 6.4. There were no significant differences between pupils' writing performance globally considered in the different regions.

Summary chart

6.36 The results reported in this chapter are summarised in the following chart. The percentages shown against each sub-category are *weighted*, that is, they represent the proportion of children in the total population of 15 year olds falling into the

sub-categories. They therefore differ from those stated in the body of this chapter, where *unweighted* proportions, namely the proportions of children in the *sample* falling into the sub-categories, were given (the process whereby weighting factors were applied to each pupil's score where necessary, is described in Appendix I).

Figure 6.4 Summary chart – writing performance



7. Language monitoring at secondary level: the first two years

7.1 The 1980 secondary survey was the second in a series of five APU surveys of the language performance of 15 year old pupils. In this report, as in the report on the 1979 secondary survey, pupils' performances are discussed with reference to selected activities involving reading, writing, or a combination of literacy skills. Their responses to questions about their attitudes to reading and their reading interests and preferences are also outlined.

7.2 It is the intention that each report in the series should incorporate an analysis of pupils' performance with respect to a different set of tasks and questions so that, at the end of the five year cycle of surveys, reference will have been made in the reports to the full range of language activities initially proposed by the Language Steering Group and developed by the monitoring team. The commentary in this survey, therefore, should be seen as building on and developing the analyses of the language performance of 15 year old pupils which were incorporated into the report on the first secondary survey.

7.3 In that report, reading performance was exemplified with reference to pupils' interpretations of two booklets, one of which comprised a short story and the other a form of brochure which gave detailed information about the facilities available in a fictional seaside resort. The short story used in the 1979 survey had the content and structure characteristic of many thrillers. Its interest derived primarily from the plot rather than other aspects of the narrative. In the short story commented on in this report, the motivations for the actions of the central characters provided the primary focus of narrative interest. Pupils' responses to questions on this aspect of the story and on the general theme, which allowed for more than one interpretation, provided further evidence of 15 year old pupils' responses to literature. Future reports will build on this preliminary evidence.

7.4 In the 1980 secondary survey, a number of composite tasks which involved both reading and writing were introduced. Pupils' responses to two of these exercises were discussed in Chapter 2. It is the intention, in future surveys, to extend the range of such tasks and to examine the variety of methods used by pupils in recording what is read.

7.5 In the 1979 secondary survey, pupils' performance with respect to three writing tasks was commented on in detail. One required a persuasive argument to be constructed on the basis of a strong personal opinion. A second task involved giving a detailed explanation of how to perform a chosen activity. Both topics had in common the fact that they invited the pupil to write on a subject of his or her own choosing, from a position of authority or conviction. The third task involved the pupil writing a letter of application for a job. All of the tasks, therefore, entailed writing addressed to a public audience.

7.6 The writing tasks commented on in this report comprised a story written with a young readership in mind and a report about something that had been learnt in

the recent past. The tasks imposed contrasting requirements with regard to the content, organisation and style of writing required. In addition, pupils' responses to an exercise that involved the editing of writing produced by other pupils were described. The analysis of pupils' achievements in responding to a range of different writing tasks will be continued in subsequent reports.

7.7 The attitude materials were designed both to provide further information on the areas explored by means of responses to statements in the previous survey and also to investigate issues that emerged from findings in this survey. Several of the open-ended questions in 1979 related to attitudes to the reading of novels and poetry in school and compared such reading with that undertaken voluntarily. In 1980, work on school activities associated with reading focussed on library usage, while issues such as attitudes to television and preferences regarding voluntary book and magazine reading were also explored. Comparisons have been made, where relevant, between pupils' responses in the two surveys to individual statements or questions.

7.8 No direct comparison has been drawn between the overall performance in reading and writing of pupils who participated in the first and second secondary surveys. In due course, the data obtained from successive surveys will be analysed retrospectively to investigate the extent of variations in performance over a five year period.

7.9 Without attempting to make direct comparisons between pupils' performance in these surveys, however, there is some justification for pointing to a number of similarities in patterns of performance within years as these are indicated in the findings illustrated in the summary charts,¹ in which mean scores are linked to a range of background variables.

7.10 On the tests of reading, girls obtained a significantly higher score than boys in the 1980 survey, although the difference between the mean scores amounted to no more than 0.5. In 1979, the mean score obtained by girls was higher, but not significantly higher, than that obtained by boys. It is not possible to tell on the basis of the mean scores obtained in two surveys whether the difference identified between the performance of boys and girls is indicative of an underlying pattern of performance.

7.11 It seems clear, however, from the findings in both years, that girls perform significantly better than boys in writing. In each survey, there were significant differences between the performance of boys and girls both with respect to scores derived from impression marking and those derived independently from the different criteria employed in analytic marking.

7.12 In the reading surveys carried out in both years, pupils whose first language was English performed significantly better than those who spoke English as a second language. In neither year, however, did this generalisation apply to the Welsh-speaking pupils, the largest group of second language speakers in the samples.

7.13 In 1979, pupils who spoke English as a second language obtained a significantly lower score in writing than did native speakers of English. In the 1980 survey, this was not the case.

7.14 In both surveys and with regard to both reading and writing, the mean score of pupils in single sex schools was significantly higher than that of pupils of the

¹ Figures 5.11 and 6.4

same sex in co-educational schools in England and Wales. The interaction between sex of school and type of school was noted in the discussion of this finding. Many single sex schools are selective schools.

7.15 In both the 1979 and 1980 surveys and with respect to both reading and writing performance, the mean scores of pupils tended to decrease as the proportion of pupils in school who were entitled to free school meals increased.

7.16 In the total sample, no consistent differences emerged in England and Wales in 1979 or 1980 between the performance of pupils in large, medium-sized and small schools. In Northern Ireland, however, the mean reading scores of pupils in the small-school category (up to 600 pupils) were significantly lower in both years.

7.17 In 1979 and 1980, the mean reading performance scores of pupils in metropolitan areas in England who attended schools with the fewest pupils per teacher (fewer than 15 pupils per teacher) were significantly lower than those of pupils in other pupil/teacher ratio sub-categories. It was pointed out, in paragraph 5.35, that factors special to the needs of inner city schools would need to be taken account of in interpreting this result. This pattern did not obtain in non-metropolitan areas.

7.18 In both surveys, pupils in non-metropolitan areas achieved significantly higher mean scores in reading than pupils in metropolitan areas. In neither survey were significant differences found between the writing performance of pupils in the different locations.

7.19 No significant differences between the writing performance of pupils in the different regions emerged in either of the surveys. Nor is it yet possible from the data available from the two surveys to discern a consistent pattern of performance related to regional differences in reading.

7.20 It seems advisable at this point to reiterate an observation made in previous reports. It is important to emphasise that the school variables referred to in the discussion of background variables are not necessarily independent of each other. For example, in Chapters 5 and 6, information about the relationship between school and pupil variables and performance in reading and writing has been given with respect to the different regions identified; significant differences between the reading performance of pupils in the regions were noted. It needs to be stressed again, however, that such regional variations must, in turn, reflect other underlying variables, such as social class differences or differences in the distribution of different types of schools, about which information is not currently available for use by the monitoring team.

7.21 It should be strongly emphasised that these findings need to be interpreted with caution until the results of each of the five surveys in the initial round of monitoring can be related. There will inevitably be some variation in performance with respect to background variables in each year: relatively stable patterns of performance or trends in performance can only be identified over a number of years. It also needs to be emphasised, once again, that variations in performance that are shown to be statistically significant are not necessarily significant in educational terms. Whether or not a difference in performance is educationally significant can only be determined by subject specialists and those professionally concerned with educational achievement.

Appendix 1 The sampling strategy

A1.1 The survey was designed to provide information about the performance of pupils whose sixteenth birthday fell between 1st September 1980 and 31st August 1981. Pupils in special schools or special units within schools were not, however, included.

To ensure that schools of different types and sizes were represented, the schools involved were categorised with reference to a number of variables. The following sub-categories or strata were distinguished as a basis for selecting the sample of pupils.

Stratifying School Variables	England	Region	North
			South Midlands
		<i>Metropolitan/Non-metropolitan</i>	
		<i>Size of age group</i>	1-80 81-160 161-240 241-plus
		<i>Type of school</i>	Comprehensive to 16 Comprehensive to 18 Grammar, secondary modern, other types Independent
	Wales	<i>Size of age group</i>	1-80 81-160 161-240 241-plus
			Comprehensive to 16 Comprehensive to 18 Grammar, secondary modern, other types Independent
			Comprehensive to 16 Comprehensive to 18 Grammar, secondary modern, other types Independent
			Comprehensive to 16 Comprehensive to 18 Grammar, secondary modern, other types Independent
	Northern ¹ Ireland	<i>Size of age group</i>	1-80 81-160 161-240 241-plus
			Grammar Intermediate Technical college
			Grammar Intermediate Technical college
			Controlled Maintained and voluntary

¹ In Northern Ireland, year groups are composed of pupils born between 2nd July and the following 1st July. Consequently, of the pupils tested in Northern Ireland approximately five-sixths were in their fifth year of secondary schooling and one-sixth in fourth year classes.

The sampling administration procedure

A1.2 The Monitoring Services Unit of the NFER followed its normal procedure of asking local education authorities for permission to contact schools under their control. They were informed of the consultations that had already taken place with representatives of local education authorities and teacher organisations, and of the guaranteed anonymity of pupils, schools and LEAs in any document or report produced by NFER for transmission to the sponsors, or for general publication. These procedures have been outlined in earlier reports.

The materials and instructions for the administration of the tests or questionnaires were sent to schools about three weeks before the period of testing. In each school, a reading or a writing test was administered to a different sub-sample of pupils.

Eight reading booklets were distributed randomly within each school. Ten writing booklets were distributed randomly throughout the sample of schools. In each school, the pupils selected received an identical writing booklet.

In 80 per cent of schools, 20 per cent of pupils taking the reading tests were also given an attitude questionnaire.

In a sub-sample of 67 schools, pupils allocated to the writing sub-sample were also given a reading test for linking purposes.

In Wales and Northern Ireland, schools not involved in the linking exercise also took part in the APU science survey. The reading, writing and science tests were each given to different pupils (selected by dates of birth).

Testing was carried out in the week beginning Monday, November 10th and a further fortnight from the day of testing was allowed so that pupils who were absent on that day could be tested.

Pupil data

A1.3 Information was obtained about pupils' dates of birth, sex and first language. Information relating to the components of the science curriculum studied by pupils was also obtained for subsequent analysis by the APU science monitoring team.

The sample of schools

A1.4 Table A1.1 lists the counties in regions in England and Wales and the names of the Northern Ireland Education and Library Boards.

Table A1.2 gives the number of schools in the samples.

In Table A1.3, the number of pupils in the sub-samples in England, Wales and Northern Ireland is given. The proportion of pupils involved in any school depended on the number of pupils in the age group and was selected by reference to dates of birth as indicated below:

<i>Size of age group</i>	Dates of birth	
	<i>Reading</i>	<i>Writing</i>
1— 80	1st to 12th	13th to 19th
81—160	1st to 6th	7th to 10th
161—240	1st to 3rd	4th to 5th
241-plus	1st and 2nd	3rd

Table A1.3: a total sample of 11,298 pupils was selected, of whom 527 were absent and 51 were withdrawn at the Head's discretion at the time of testing.

Details of the complete sample of pupils and the number of pupils completing each of the tests are given in Table A1.4.

Table A1.1 *Counties in regions in England and Wales*

*Metropolitan counties

NORTH	MIDLANDS	SOUTH
Merseyside*	West Midlands*	Greater London*
Greater Manchester*	Hereford & Worcester	Bedfordshire
South Yorkshire*	Shropshire	Berkshire
West Yorkshire*	Staffordshire	Buckinghamshire
Tyne & Wear*	Warwickshire	East Sussex
Cleveland	Derbyshire	Essex
Cumbria	Leicestershire	Hampshire
Durham	Lincolnshire	Hertfordshire
Humberside	Northamptonshire	Isle of Wight
Lancashire	Nottinghamshire	Kent
North Yorkshire	Cambridgeshire	Oxfordshire
Northumberland	Norfolk	Surrey
Cheshire	Suffolk	West Sussex
		Isle of Scilly
		Avon
		Cornwall
		Devon
		Dorset
		Gloucestershire
		Somerset
		Wiltshire
WALES	NORTHERN IRELAND EDUCATION AND LIBRARY BOARDS	
Clwyd	Belfast	
Dyfed	North Eastern	
Gwent	Southern	
Gwynedd	South Eastern	
Mid Glamorgan	Western	
Powys		
South Glamorgan		
West Glamorgan		

**Sample representation
and weighting factor**

A1.5 The selection of the schools was such that the number of sample schools within each stratum was proportionate to the total number of pupils in the stratum. This ensured that the sample data were representative of the population, the intention being that every pupil in the population had an equal probability of being selected for the sample. In practice, pupils were selected within schools according to a predetermined policy and the probability of selection was approximately constant.

The sample pupils were selected from schools according to criteria sensitive to the size of the age group in the school: the more pupils in the age group, the smaller the probability of selection. The intention was to obtain approximately equal numbers of pupils per school, regardless of the total number of pupils.

Weighting statistics had to be applied to the achieved sample so that it was representative of the total population. The weighting factor calculations were very simple, and the weights obtained applied to all schools within a stratum. The weights used were the ratio of the number of pupils in the population to the number of pupils in the achieved sample, for each stratum. It was necessary to group strata which contained less than two schools in the achieved sample. The weights were applied in all analyses of the data.

Estimation of means and standard errors

A1.6 A principal objective of the survey was to provide estimates of reading and writing performance on a national basis. The mean values of the pupils' performance estimates over the whole sample and various sub-classes of the sample provided these estimates. The mean value is an estimate and it is essential to provide an indication of the confidence which can be ascribed to it. It is usual to specify the limits about a mean value within which one can be 95 per cent certain that the 'true' mean actually lies. In order to provide these limits or confidence intervals, the standard error of the mean is required. The larger the standard error the broader the confidence interval.

The estimation of the mean and the associated standard error depends upon the sample design used to obtain the data. Where the probability of selection for any pupil is constant, the estimation of the mean is the arithmetical average of all the data. The estimation of the standard error still depends upon the sample design used and can be quite complex, even though no weighting factors are involved.'

The estimates in this survey all required weighting factors. The weights were calculated as described in section A1.5. The weights apply to both the mean and standard error calculations.

Detailed information about the computational formulae used to obtain the appropriate estimates is given in the technical supplement on the analyses employed in APU monitoring in language.

Table A1.2 *The sample of schools*

	Number of pupils			
	England	Wales	N. Ireland	TOTAL
Invited to take part	281	73	64	418
Unable to take part	28	10	8	46
No reply	7	4	4	15
Initial agreement, but withdrew later	2	—	1	3
Tests not received or returned unused	2	1	2	5
Tests received	242	58	49	349
Sub-sample: Attitudes	196	47	39	282
Linking	46	11	10	67

Table A1.3 *The sample of pupils*

	Number of pupils			
	England	Wales	N. Ireland	TOTAL
Total sample	7748	1923	1627	11298
Absent	321	131	75	527
Withdrawn	40	7	4	51
Number completing tests	7387	1785	1548	10720

Table A1.4 *Sub-samples of pupils*

	Number of pupils			
	England	Wales	N. Ireland	TOTAL
Reading ¹	4647	1137	954	6738
Linking ¹	583	128	107	818
Writing ¹	2157	520	487	3164
Total sample of pupils completing tests	7387	1785	1548	10720
Attitudes (Sub-sample of pupils taking reading test)	755	185	151	1091

Appendix 2 Data on attitudes to reading

Attitude questionnaire administration instructions to teachers

A2.1 Please read out the following remarks to the pupils:

The purpose of what you are about to do is to find out what pupils of your age think and feel about the reading they do.

The first booklet (with the white cover) consists of a series of statements for you to indicate whether you agree or disagree.

The second booklet (with the green cover) consists of a variety of questions of different types for you to answer in your own words. You are asked to answer the questions in this section of your booklets in as much detail as you can. Think carefully before you answer to make sure that you put down what you really do think or feel, and then try to explain the reasons that lie behind your opinions and feelings in as much detail as you can.

Now turn to the first booklet (the one with the white cover), and follow the instructions on page 1 as they are read to you.

We would like you to tell us some of your views and feelings about READING.
There are a number of sentences written on the following pages.
Each sentence has beside it five different possible answers:

YES	yes	not sure	no	NO
-----	-----	----------	----	----

If you feel you agree strongly with a sentence, draw a circle around the big YES.

<u>YES</u>	yes	not sure	no	NO
------------	-----	----------	----	----

If you feel you agree with a sentence, but not very strongly, draw a circle around the small yes.

YES	<u>yes</u>	not sure	no	NO
-----	------------	----------	----	----

If you are really not sure whether you agree or don't agree with a sentence, draw a circle around not sure.

YES	yes	<u>not sure</u>	no	NO
-----	-----	-----------------	----	----

If you feel that you don't really agree with a sentence, but don't disagree very strongly, draw a circle around the small no.

YES	yes	not sure	<u>no</u>	NO
-----	-----	----------	-----------	----

If you feel that you don't agree at all with a sentence, draw a circle around the big NO.

YES	yes	not sure	no	<u>NO</u>
-----	-----	----------	----	-----------

*Now, turn to the next page. Read through the first sentence and decide on your answer. Draw a circle round the answer that is **right** for you.*

In a few moments you will continue working through the rest of this booklet. Before you do this, listen to the rest of the instructions.

When you have finished this first booklet, you may go on to the second booklet without waiting to be told. Remember to read the instructions to each question carefully before you answer.

If you need more space to write than is provided, continue on the back of the sheet immediately corresponding to the question you are answering. The back of each sheet has been left blank for this purpose.

*Please be honest. Only the people doing the research will read what you write. It is important that we should know what you **really** think and feel.*

Now – read the second sentence on page 2 of the white-covered questionnaire and decide on your answer. Now continue working through this booklet. When you have finished go on to the green-covered booklet without waiting to be told.

Statement of initial findings concerning the attitude scales

A2.2 As was stated in Chapter 3, the statements to which responses have been reported, whilst of educational interest in their own right, were also included in the questionnaire as part of the intended development of a scale or scales. The term “scale” in this context is defined as a selection of statements which express positive and/or negative feelings towards one discrete variable. The variables that have been identified and formed into the scales reported on in the following discussion are as follows:

- pleasure in independent, extended reading
- reluctance towards extended reading
- reading for self-improvement
- preference for factual reading
- attitude towards reading aloud
- attitude to school activities associated with reading

Responses to the statements referring to each of these variables are consistently allocated a numerical value according to their stance (positive or negative towards the variable being described). Thus, since pupils responded with the following range of possible replies *YES, yes, not sure, no, NO*, a pupil who answered *YES* to a particular statement (such as *Reading gives me hours of pleasure*) might be allocated a score of 4, while a pupil who answered *NO* would score 0. Conversely, the first pupil might answer *no* to another statement within the same scale (such as, *I'd rather watch TV than read a book*). For this response, a score of 3 would be given. Thus, within this scale, a high score would consistently indicate a positive attitude towards reading and a low score a negative attitude. The numerical values allotted to pupils' responses to the statements in each factor are then added, to form scores on the factor or “scale” concerned.

In addition, the number of statements within a scale varies from scale to scale. Accordingly, as will be seen from the graphs below, the length of each scale is dependent on the number of statements it contains. At this stage, the scale scores have to be accepted purely as baselines against which subsequent findings from future surveys may be compared. Consequently, this section will outline initial

findings which have significance in their own right: the relationship between the scale scores of boys and girls, and the correlation between scale scores and performance on the reading tasks. Brief information about the development of the scales will also be found at the end of this section.

The relationship between the scale scores of boys and girls

Pleasure in independent, extended reading

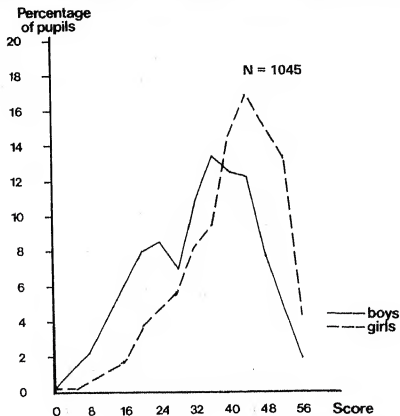
Significant differences between the scores of boys and girls emerged in relation to all of the scales with the exception of attitude towards reading aloud.

This scale contained the following fourteen statements (giving a possible range of scores of 0–56):

- Reading helps me to relax.*
- I like reading at home.*
- I like reading because I can feel myself in the writer's or character's position.*
- There are a lot of books I want to read.*
- I like reading by myself for hours.*
- I like reading fiction (stories).*
- I like to read long, thick books.*
- I get involved in what I'm reading.*
- I get bored reading silently to myself.*
- I enjoy reading.*
- When I am bored I usually amuse myself by reading.*
- I like going off and reading silently by myself.*
- Reading takes my mind off other things.*
- I like always to have a book to read at home.*

Figure A2.1 shows the distribution of scores for boys and girls: significantly more girls than boys obtained high scores on this scale. This difference was significant at the 0.1 per cent level.

Figure A2.1 *Score distribution for pleasure in independent extended reading*

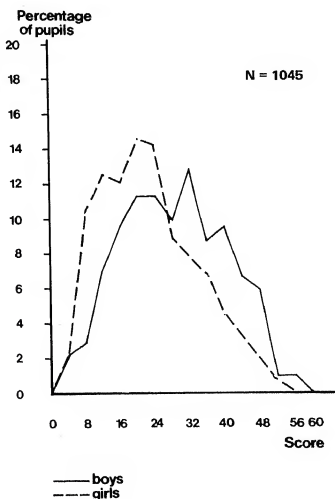


*Reluctance towards
extended reading*

This scale, which contains fifteen statements, had a possible range of 0–60:

- I prefer reading short books.*
- I wish that books were easier to understand.*
- Apart from schoolwork I only read if I want to find out something.*
- It takes me a long time to read most books.*
- I wish that books hadn't got such hard words in them.*
- I prefer to listen to something being read out to reading it myself.*
- My life outside school is too full for reading.*
- I prefer reading comic books and annuals to other sorts of books.*
- I wish that books had less writing and more pictures.*
- I prefer watching television to reading books.*
- I read comics and magazines at home more than I read books.*
- I seldom see a book I want to read.*
- I only read what I have to.*
- I don't usually read at home.*
- I prefer reading about my hobbies to reading fiction (stories).*

Figure A2.2 Score distribution for reluctance towards extended reading



As can be seen above, the statements included in this scale express negative attitudes of boredom and reluctance towards independent reading and preference for reading activities with a specific short-term purpose rather than extended reading for pleasure. Figure A2.2 shows the distribution of scores for boys and girls: signifi-

cantly more boys endorsed these statements than girls. The difference was significant at the 0.1 per cent level.

Reading for self-improvement

This scale of eight statements (giving a possible range of scores between 0–32) contained statements referring to motives for reading related to improvement in schoolwork and language skills, and employment opportunities:

Through reading I will learn to read better.

Through reading I will be helped to express myself better in writing.

I want to read well to help me to get a job.

I want to read well to help my schoolwork.

Reading helps me with my spelling.

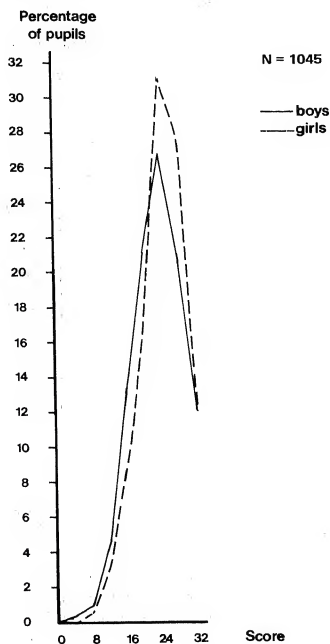
I want to read well so that I can read harder books.

I want to read to help me at school rather than to amuse myself.

Reading helps me to learn new words that I do not already know.

It is evident from the very high scores reported in Figure A2.3 that such motives

Figure A2.3 *Score distribution for reading for self-improvement*



for reading were generally accepted, although more girls than boys did endorse these statements. (This difference was significant at the 1 per cent level.)

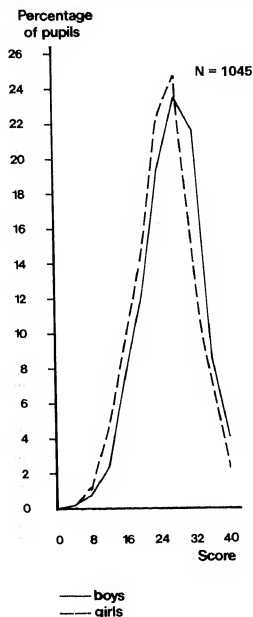
Preference for factual reading

The following ten statements are contained in this scale, which therefore had a possible range of scores of 0–40:

- I prefer books which give accurate facts.*
- I like to read to develop my ideas and opinions.*
- I like to read to increase my knowledge.*
- I enjoy using a library to find things out.*
- I like to read to learn about people.*
- I like using books to find things out.*
- When I read by myself it is usually to learn about things that interest me.*
- I prefer reading non-fiction to reading fiction.*
- I like to read to learn how things work or how to do things.*
- I like reading non-fiction.*

A significant sex difference (at the 1 per cent level) was also evident for this scale.

Figure A2.4 Score distribution for preference for factual reading



Attitude towards reading aloud

The eight statements in this scale (giving a possible range of scores between 0–32) were a combination of comparative attitudes to silent, independent reading and reading aloud, and reasons for disliking reading aloud:

I prefer reading aloud around in a group to reading by myself.

I like it when it is my turn to read aloud.

I don't like reading aloud because I worry about the mistakes I'll probably make.

I get embarrassed if I have to read something out loud.

I like reading best when I am reading aloud to somebody.

When I'm reading aloud I read too slowly.

I prefer reading aloud to reading silently to myself.

I like reading to myself better than reading aloud.

Few pupils enjoyed reading aloud and there was no significant difference between the responses of boys and girls.

Figure A2.5 Score distribution for attitude towards reading aloud

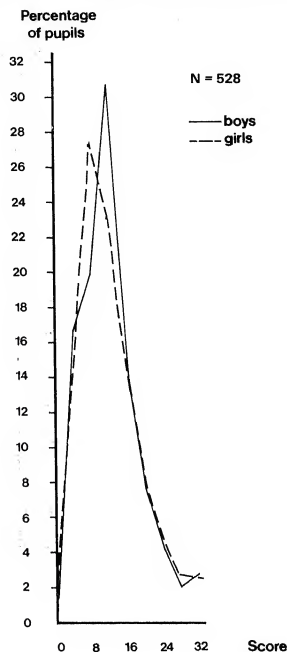


Table A2.1 Responses to statements concerning reading aloud, 1980 secondary survey

Statements	% Yes			% No			% Not sure		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
I like reading to myself better than reading aloud	83.9	85.8	84.9	10.2	9.9	10.1	5.9	4.3	5.0
I like reading best when I am reading aloud to somebody	11.7	11.3	11.5	80.9	80.6	80.7	7.4	8.1	7.8
I prefer reading aloud to reading silently to myself	10.3	9.9	10.1	80.6	84.8	82.8	9.1	5.3	7.1
I prefer reading aloud around in a group to reading by myself	9.4	8.2	8.8	87.1	87.9	87.5	3.5	3.9	3.7
I like it when it is my turn to read aloud	18.4	25.4	22.1	70.6	65.8	68.1	11.0	8.8	9.8
I don't like reading aloud because I worry about the mistakes I'll probably make	48.2	51.7	50.1	42.4	42.7	42.5	9.3	5.6	7.4
I get embarrassed if I have to read something out loud	35.5	46.1	41.1	56.3	48.2	52.0	8.2	5.6	6.9
When I'm reading aloud I read too slowly	26.2	22.0	24.0	56.6	60.8	58.9	17.2	17.1	17.1

¹ non-respondents
not included

Table A2.2 Responses to statements concerning reading aloud, 1979 secondary survey¹

Statements	% Yes			% No		
	Boys	Girls	Total	Boys	Girls	Total
I like reading to myself better than reading aloud	90.1	88.9	89.5	8.8	10.7	9.7
I like reading best when I am reading aloud to somebody	8.4	9.5	8.9	91.4	90.3	90.9
I prefer reading aloud to reading silently to myself	11.0	10.5	10.8	88.4	89.3	88.8

Attitude to school activities associated with reading

This scale contained eight statements (giving a possible range of 0–32), all of which related to the ways in which books are studied at school at fourth and fifth form level, and their effect both on enjoyment and understanding, and on voluntary reading:

Writing about a novel after reading it helps me to enjoy it more.

Talking about a novel in class helps me to understand it better.

Making notes about a novel as I read it helps me to understand it better.

Writing about a novel after reading it helps me to understand it better.

Studying novels and plays in English helps me to enjoy reading more.

Talking about a novel in class helps me to enjoy it more.

Making notes on a novel as I read it helps me to enjoy it more.

I enjoy reading other books like the books we read in class in English.

Girls were significantly more positive than boys about the effect of these activities. This difference was significant at the 0.1 per cent level.

Figure A2.6 *Score distributions for attitude to school activities associated with reading*

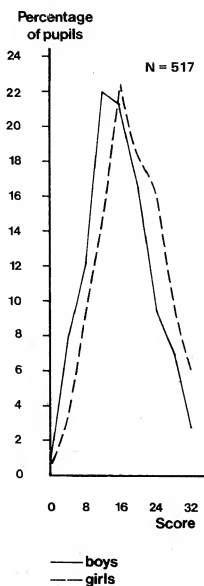


Table A2.3 Responses to statements expressing enjoyment of sustained independent reading and motives for reading, 1980 secondary survey

Statements	% Yes			% No			% Not sure		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
I enjoy reading	72.3	87.7	80.3	17.4	5.9	11.4	10.4	6.3	8.2
I like reading at home	70.6	89.1	80.2	22.2	7.8	14.7	7.3	3.1	5.1
I like always to have a book to read at home	49.0	68.6	59.2	40.0	21.8	30.5	11.0	9.6	10.3
I like going off and reading silently by myself	49.4	68.1	59.2	36.2	21.7	28.6	14.4	10.1	12.2
There are a lot of books I want to read	54.7	67.0	61.1	31.9	20.7	26.1	13.4	12.3	12.8
I like reading by myself for hours	33.9	58.0	46.4	56.5	33.2	44.4	9.6	8.8	9.2
I like to read long, thick books	18.1	30.0	24.3	64.4	53.9	58.9	17.5	16.1	16.8
Reading helps me to relax	67.1	81.9	74.8	24.0	12.3	17.9	9.0	5.8	7.3
Reading takes my mind off other things	56.7	72.6	64.9	30.8	19.0	24.7	12.5	8.5	10.4
When I am bored I usually amuse myself by reading	34.7	55.3	45.4	55.4	36.1	45.3	9.9	8.7	9.3
I get involved in what I'm reading	60.1	76.6	68.7	24.8	13.1	18.7	15.1	10.2	12.6
I like reading because I can feel myself in the writer's or character's position	34.1	52.4	43.6	45.5	27.8	36.3	20.4	19.8	20.1
Through reading I will learn to read better	86.1	87.2	86.6	5.9	4.3	5.1	8.0	8.5	8.3
Reading helps me to learn new words that I do not already know	72.7	86.6	79.9	14.8	6.1	10.4	12.5	7.2	9.7
Through reading I will be helped to express myself better in writing	75.0	80.3	77.8	10.6	7.7	9.1	14.3	12.0	13.1
Reading helps me with my spelling	75.1	79.1	77.2	13.2	10.3	11.7	11.7	10.6	11.1
I want to read well so that I can read harder books	45.1	57.1	51.4	32.6	24.6	28.4	22.3	18.3	20.2
I want to read well to help me to get a job	56.4	58.9	57.7	20.0	19.8	19.9	23.7	21.3	22.4
I want to read well to help my schoolwork	68.5	83.9	76.5	16.7	9.4	12.9	14.8	6.7	10.6
I want to read to help me at school rather than to amuse myself	36.1	31.8	33.9	43.0	49.6	46.5	20.8	18.6	19.6

Table A2.4 Responses to statements expressing enjoyment of sustained independent reading,

¹ non-respondents
not included

Statements	% Yes			% No		
	Boys	Girls	Total	Boys	Girls	Total
I enjoy reading	77.9	88.7	83.2	21.5	10.9	16.3
I read for pleasure	73.7	86.0	79.7	25.0	13.0	19.1
I like going off and reading by myself	69.3	85.0	77.0	29.0	14.6	21.9
I prefer to read when I am on my own	78.9	87.9	83.3	19.6	11.5	15.6
I read at home a lot	39.8	56.5	48.0	58.9	42.7	50.9
I like reading for hours on end	16.0	38.7	27.2	82.7	60.9	72.0

Table A2.5 *Responses to statements expressing negative or reluctant attitudes to reading, 1980 secondary survey*

Statements	% Yes			% No			% Not sure		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
I only read what I have to	21.6	9.8	15.5	72.1	85.7	79.2	6.2	4.5	5.3
Apart from schoolwork I only read if I want to find out something	32.5	12.4	22.1	64.5	84.3	74.8	2.9	3.3	3.1
I seldom see a book I want to read	32.9	19.3	25.8	52.5	67.0	60.1	14.6	13.7	14.1
I get bored reading silently to myself	27.6	16.0	21.6	64.2	78.6	71.7	8.2	5.4	6.7
I prefer to listen to something being read out to reading it myself	37.4	21.9	29.3	49.1	69.3	59.6	13.5	8.9	11.1
It takes me a long time to read most books	46.2	30.7	38.1	48.1	64.2	56.5	5.7	5.1	5.4
I wish that books hadn't got such hard words in them	23.1	26.0	24.6	60.1	59.2	59.6	16.8	14.9	15.8
I wish that books were easier to understand	33.1	28.9	31.0	45.6	51.4	48.5	21.2	19.7	20.5
I wish that books had less writing and more pictures	16.0	7.7	11.7	70.8	85.4	78.4	13.2	6.8	9.9
I prefer reading short books	53.9	44.1	48.8	34.2	40.9	37.7	11.9	15.0	13.5
I don't usually read at home	29.7	26.8	28.2	63.1	69.7	66.5	7.3	3.4	5.3
My life outside school is too full for reading	29.7	17.0	23.1	58.9	73.2	66.3	11.4	9.8	10.6
I prefer watching television to reading books	63.1	40.1	51.2	18.0	33.5	26.1	18.8	26.4	22.7

Table A2.6 *Responses to statements expressing reluctant or negative attitudes to reading 1979 secondary survey¹*¹ non-respondents not included

Statements	% Yes			% No		
	Boys	Girls	Total	Boys	Girls	Total
I only read what I have to	28.4	13.8	21.2	70.5	85.6	77.9
Apart from schoolwork I only read if I want to find out something	36.6	15.8	26.4	63.0	84.2	73.4
I seldom see a book I want to read	39.6	24.7	32.3	58.7	24.7	66.4
I prefer to listen to something being read out to reading it myself	45.0	25.3	35.3	52.8	73.9	63.1
It takes me a long time to read anything	39.6	30.2	35.0	58.9	69.6	64.1
My life outside school is too full for reading	32.4	23.5	28.0	65.9	75.5	70.6

Table A2.7 *Responses to statements concerning content and type of reading material, 1980 secondary survey*

Statements	% Yes			% No			% Not sure		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
I like reading fiction	69.8	79.9	75.1	20.0	10.5	15.1	10.2	9.6	9.8
I like reading love stories	12.1	73.1	43.7	78.0	17.2	46.4	9.9	9.8	9.9
I enjoy reading poems	23.7	39.8	32.1	67.1	50.4	58.4	9.2	9.8	9.5
I would rather read stories than poems	83.2	82.9	83.1	9.4	9.2	9.3	7.4	7.9	7.6
I prefer reading comic books and annuals to other sorts of books	30.9	28.0	29.4	57.0	58.3	57.7	12.1	13.6	12.9
I read comics and magazines at home more than I read books	44.3	41.3	42.8	46.7	50.5	48.6	9.0	8.3	8.6
I like reading non-fiction	55.9	48.3	52.0	26.5	31.2	28.9	17.5	20.5	19.1
I prefer reading non-fiction to fiction	34.8	22.7	28.5	42.0	54.0	48.2	23.2	23.4	23.3
I like to read to increase my knowledge	69.6	66.8	68.1	16.6	20.0	18.4	13.8	13.1	13.5
I like to read to learn how things work or how to do things	72.5	48.5	60.0	15.7	32.7	24.5	11.8	18.9	15.5
When I read by myself it is usually to learn about things that interest me	74.4	50.5	61.9	16.8	35.9	26.8	8.8	13.7	11.3
I prefer books which give accurate facts	55.5	39.7	47.3	22.7	39.4	31.4	21.8	20.9	21.3
I prefer reading about my hobbies to reading fiction	48.2	19.3	33.3	35.8	65.0	50.9	16.0	15.7	15.8
I like to read to develop my ideas and opinions	58.0	69.7	64.1	19.9	14.9	17.3	22.1	15.4	18.6
I like to read to learn about people	45.5	61.3	53.7	32.9	20.9	26.7	21.6	17.8	19.6
I like to read to help me to understand my own and other people's personal problems	29.9	57.9	44.5	42.3	20.2	30.8	27.8	21.8	24.7

Table A2.8 *Responses to statements concerning content and type of reading material, 1979 secondary survey¹*¹ non-respondents not included

Statements	% Yes			% No		
	Boys	Girls	Total	Boys	Girls	Total
I like reading fiction (stories)	71.6	83.8	77.6	27.6	15.8	21.8
I like reading romances (love stories)	13.7	70.6	41.6	86.1	29.2	58.2
I like reading poems	23.6	41.5	32.4	75.4	58.3	67.0
I prefer reading books to comics and magazines	46.1	49.0	47.5	51.8	50.4	51.1
I read comics and magazines at home more than I read books	55.0	47.8	51.5	43.2	51.8	47.4
I like reading non-fiction	76.0	70.8	73.4	22.1	28.5	25.2
I prefer reading non-fiction to fiction	49.3	33.8	41.7	48.6	64.6	56.6
I like to read to increase my knowledge	75.0	75.3	75.2	23.4	23.5	23.5
I like to read to learn how things work or how to do things	85.1	66.8	76.1	13.7	31.8	22.6
I prefer reading about my hobbies to reading stories	55.2	18.2	37.1	43.8	81.8	62.5
I like to read to develop my ideas and opinions	74.7	80.0	77.3	24.8	19.6	22.2
I like to read to learn about people	51.4	67.2	59.2	46.7	32.2	39.6
I like to read to help me understand my own and other people's personal problems	42.5	70.0	56.0	57.0	28.9	43.2

Table A2.9 *Responses to statements concerning activities associated with reading in school, 1980 secondary survey*

Statements	% Yes			% No			% Not sure		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Talking about a novel in class helps me to understand it better	74.2	84.0	79.2	17.2	10.8	13.9	8.6	5.2	6.9
Writing about a novel after reading it helps me to understand it better	33.6	43.5	38.7	54.7	44.2	49.3	11.7	12.3	12.0
Making notes about a novel as I read it helps me to understand it better	33.9	45.4	39.8	49.8	45.0	47.3	16.3	9.6	12.9
Writing about a novel after reading it helps me to enjoy it more	19.1	28.0	23.6	69.6	63.1	66.3	11.3	9.0	10.1
Making notes on a novel as I read it helps me to enjoy it more	18.0	29.2	23.7	66.8	60.1	63.4	15.2	10.7	12.9
Talking about a novel in class helps me to enjoy it more	46.9	57.8	52.5	41.4	31.1	36.1	11.7	11.1	11.4
Studying novels and plays in English helps me to enjoy reading more	32.3	46.9	39.8	46.7	35.4	40.9	21.0	17.7	19.3
I enjoy reading other books like the books we read in class in English	29.8	48.5	39.4	52.9	31.5	41.9	17.3	20.0	18.7
I enjoy using a library to find things out	48.5	52.1	50.4	35.2	34.4	34.8	16.2	13.5	14.8
I like using books to find things out	70.5	68.2	69.3	17.7	19.5	18.6	11.8	12.3	12.1

Table A2.10 *Responses to statements concerning activities associated with reading in school, 1979 secondary survey¹*¹ non-respondents not included

Statements	% Yes			% No		
	Boys	Girls	Total	Boys	Girls	Total
Talking about a novel in class helps me to understand it better	81.1	88.1	84.6	17.5	11.7	14.6
Writing about a novel after reading it helps me to understand it better	56.8	69.0	62.8	42.9	30.6	36.9
Making notes on a novel as I read it helps me to understand it better	47.6	58.1	52.8	52.0	40.9	46.6
Writing about a novel after reading it helps me to enjoy it more	34.7	47.4	40.9	63.6	51.8	57.8
Making notes on a novel as I read it helps me to enjoy it more	27.6	39.1	33.3	71.0	59.7	65.5
Talking about a novel in class helps me to enjoy it more	53.7	65.0	59.3	45.0	34.4	39.8
Studying novels and plays in English helps me to enjoy reading more	34.5	55.5	44.8	64.0	43.9	54.1
I enjoy reading other books like the books we read in class in English	53.7	65.4	59.5	45.9	34.0	40.1
I enjoy using a library to find things out	58.7	68.0	63.2	41.0	31.2	36.2

Correlations between scale scores and reading performance scores¹

¹ See *Language performance in schools, Primary survey report No. 1* and *Language performance in schools. Secondary survey report No. 1* for discussion of previous relevant research evidence concerning the relationship between attitude and reading performance.

Correlation co-efficients can be used to predict what proportion of one variable might be explained by the other variable. This proportion is calculated by squaring the correlation co-efficient. If the correlation co-efficient is 0.30, it can be said that one variable accounts for 9 per cent of another variable. (A correlation of 1.0 would indicate that one variable is totally predicted by the other variable.) However, a causal relationship cannot be assumed from the finding of a significant correlation. All that can be inferred is that the correlation co-efficient figure indicates the maximum effect that one variable might have on the other.

Since those pupils who responded to the attitude questionnaires also answered questions on the reading booklets, the relationship between scores on the attitude scales and performance on the reading materials was explored through these means. The correlations obtained between reading performance scores and scale scores are of particular interest in relation to the factor relating to reluctance to read where a negative correlation of -0.45 was obtained (significant beyond the 0.1 per cent level). Thus, response to the scale which described a reluctant attitude to extended reading could be taken as accounting for 20 per cent of the variance in the reading performance scores. In addition, a positive correlation of 0.33 (significant beyond the 0.1 per cent level) was obtained in relation to the factor relating to enjoyment of reading. Pupils who were reluctant to read extensively tended to do less well on the reading tasks, while pupils who professed enjoyment of independent, extended reading tended to do better. Full details about the correlations between reading performance and all factor scores are to be found in Table A2.11:

Table A2.11 *Correlation between scales and reading performance scores*

Correlation	Significance level	
Pleasure in independent, extended reading	0.33	0.001
Reluctance towards extended reading	-0.45	0.001
Reading for self-improvement	-0.15	0.001
Preference for factual reading	-0.06	0.05
Attitudes towards reading aloud	0.01	0.87
Attitude to school activities associated with reading	-0.1	0.02

Brief details about the development of the attitude scales

A2.3 To provide initial indications of the concerns of 15 year old pupils, in the summer of 1979 four booklets were piloted, each of which contained a variety of types of questions and stimuli to elicit open responses on a range of subjects to do with reading. The statements included in the November 1979 survey reflected the preoccupations evident in these pilot answers of these pupils. Account was also taken of the factors which had emerged in the 1979 primary survey, and the statements which contributed to them. Negatively worded statements were intentionally

excluded as a result of experience at primary level, where teachers' comments and scripts giving evidence of pupil confusion suggested that responding on a yes/no scale to such statements might be problematic. (No evidence of response sets emerged from analyses of responses, and the variety of content across statements did not lend itself to such sets.) Statements were included which related to the following areas: independent reading and reading aloud; content and type of reading material; motives for reading; reluctant or negative attitudes towards reading; school activities associated with reading.

Additionally, in January 1980 a further four booklets, each containing thirty to forty statements, were piloted with 1,000 15 year old pupils. One booklet duplicated the statements previously responded to in the 1979 primary survey (which had also formed one booklet of the four piloted in November 1979 with 11 year old pupils). The other three contained statements which both developed further the areas included in the previous secondary survey and included the expression of issues evident in open-ended responses in this survey. The areas explored in the January 1980 pilot, therefore, were: independent reading for pleasure, reluctance towards reading, attitudes towards reading aloud, reading for self-improvement, reading for true information. Unlike in the previous survey when a two-point scale had been used, pupils were asked to respond to these pilot statements on a five-point scale (*YES, yes, not sure, no, NO*) since the longer the scale of response, the better the estimate of the relationship between statements. (As described below, this relationship provides the basis for the information of scales.) Analysis of the spread of responses revealed that pupils could respond efficiently to the more subtle choice between five possible answers, and no adverse comment on administrative difficulties was received from teachers.

At each stage of development, the statements were chosen as a potential description of pupils' underlying attitudes to various aspects of reading. They were selected so that a number of common themes should recur among them. Subsequently, on both the survey and the pilot responses, the technique of factor analysis was used in order to identify which underlying themes (or "factors") did emerge in pupils' responses. The basis of factor analysis is to identify groups of correlated statements, that is, groups of statements which tend to be answered in a similar way by the pupils. The overall aim of the analysis is to find factors which, though few in number, account for as much of the information in the data as possible. In this study, statements which correlated with a factor at a value greater than 0.3 were accepted as belonging to that factor.

The resultant questionnaires, used in the 1980 secondary survey, contained a selection of statements from all four pilot booklets and from the 1979 secondary survey. Most of these statements were chosen according to statistical criteria relevant to the formation of scales described above. In addition, some statements of inherent interest were retained to be reported individually in their own right. Pupils responded to the statements on a 5-point scale. After the 1980 secondary survey, the data were again subjected to factor analysis in order to investigate the extent to which responses to the statement included did, in fact, reflect the scales as hypothesised, in the knowledge that some re-alignment might take place because the selected statements were now combined in only two questionnaires. It was anticipated that

statements would group as outlined below. In the event, this same pattern of scales was evident:

1. enjoyment of independent, extended reading
2. reluctance towards extended reading
3. reading for self-improvement
4. reading for true information
5. attitude to reading aloud
6. attitude to school activities associated with reading

If a factor is to be useful as a component in a profile of pupils' attitudes, it is necessary for the measurement it gives to be reliable (that is, any particular pupil should receive the same score if he or she responded to the scale statements a second time). Reliability co-efficients indicate the likelihood of this being the case. A co-efficient of 1.0 indicates perfect reliability, but values of 0.7 and above are usually accepted as adequate in work on the measurement of individuals' attitudes.¹ The values obtained for the factors which emerged in this survey are detailed in Table A2.12.

¹ Readers are referred to J. P. Guilford and B. Fruchter, *Fundamental Statistics in Psychology and Education*, 1973, for a detailed explanation of factor analysis and reliability theory.

Table A2.12 *Reliability co-efficients of the scales (Cronbach's alpha)*

Pleasure in independent, extended reading	0.91
Reluctance towards extended reading	0.87
Reading for self-improvement	0.77
Preference for factual reading	0.79
Attitude towards reading aloud	0.83
Attitude to school activities associated with reading	0.84

Appendix 3 Distribution of ratings: analytic marking

A3.1 The distribution of raw scores on the scale 1–5 with respect to the five sets of analytic criteria over the complete range of writing tasks used in the survey is illustrated in Figures A3.1–A3.5. The figures are derived from the analyses of a 10 per cent sub-sample of the total number of booklets.

Figure A3.1 *Distribution of ratings: analytic marking: content*

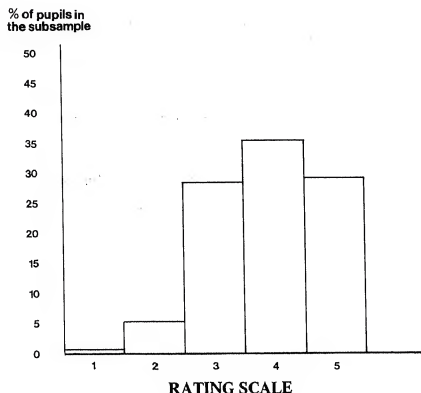


Figure A3.2 *Distribution of ratings: analytic marking: organisation*

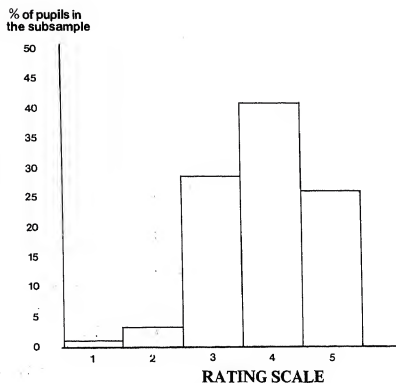


Figure A3.3 *Distribution of ratings: analytic marking: appropriateness and style*

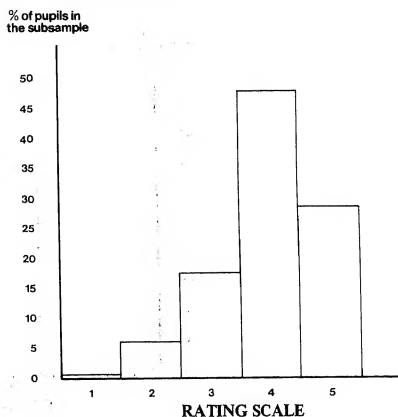


Figure A3.4 *Distribution of ratings: analytic marking: knowledge of grammatical conventions*

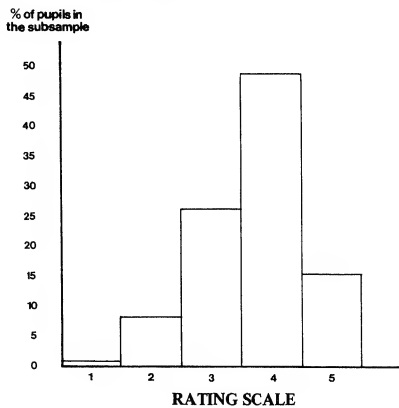
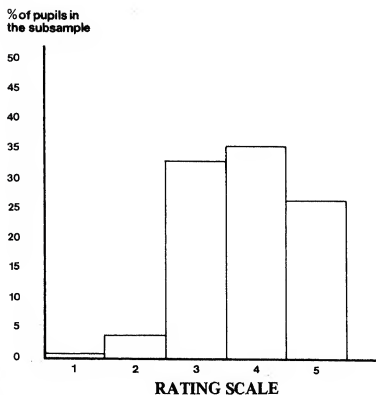


Figure A3.5 *Distribution of ratings: analytic marking: knowledge of orthographic conventions*



Appendix 4 Correlations between the measures used in reading and writing

A4.1 A sub-sample of pupils completed both a writing and a reading test. The performance of pupils in both areas was significantly correlated. The intercorrelation of scaled scores derived from impression marking and measures of reading performance was 0.63. A scattergram illustrating this relationship is given below.

Figure A4.1 *Intercorrelation of reading and writing scaled scores*

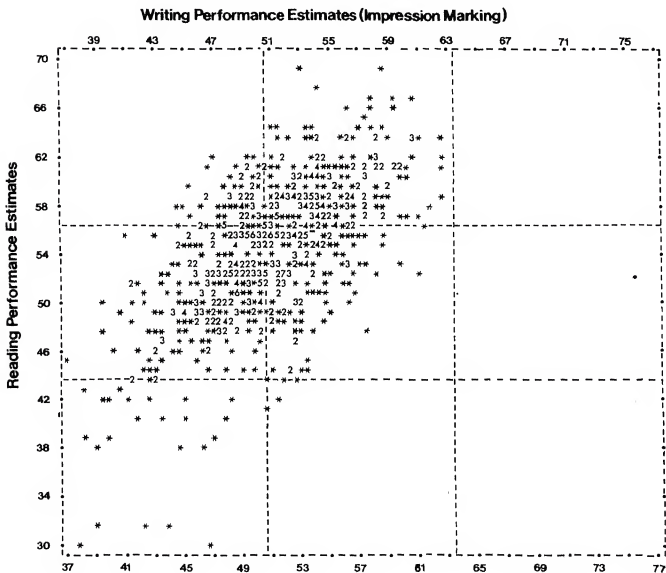


Table A4.1 *Correlations between the measures derived from impression and analytic marking;*

The correlations between the scores derived from impression and analytic marking are shown in the following table.

	Impression mark	Content	Organisation	Style	Grammatical conventions	Orthographic conventions
Content	0.75					
Organisation	0.70	0.81				
Style	0.52	0.55	0.59			
Grammatical conventions	0.54	0.54	0.51	0.43		
Orthographic conventions	0.65	0.56	0.63	0.59	0.55	

Appendix 5 Membership of groups and committees

A5.1 Membership of the monitoring team

The members of the language monitoring team at the NFER are:

Dr T P Gorman (Project Leader)
Ms J White (Deputy Project Leader)
Ms L Orchard (to January 1982)
Ms A Tate
Ms M Hargreaves
Dr M Maclure
Mr G Brooks
Ms L Lancaster (from February 1982)

Secretarial staff

Mrs B Peasgood
Mrs M Mason
Mrs D Merritt

A5.2 APU Steering Group on Language

Mr J Graham, HMI (Chairman) ¹	Professional Head of the Assessment of Performance Unit
Mr D R Barnes	School of Education, University of Leeds
Mr J F T Bartlett	Headmaster, St Thomas Aquinas School, Birmingham
Dr A Davies	Department of Linguistics, University of Edinburgh
Mr P Gannon, HMI	HM Inspectorate
Mr R Gaskell	Department of Modern Languages, Roehampton Institute of Higher Education
Dr T P Gorman	Principal Research Officer, Language Monitoring Project, NFER
Mr P Holmes, HMI	HM Inspectorate (Northern Ireland)
Mr W R Jenkins, HMI	HM Inspectorate (Wales)
Mrs S Tyas	Dearne Goldthorpe Junior and Infant School, Barnsley
Mr J Wight	Inspector for Multi-Ethnic Education, Inner London Education Authority

A5.3 Monitoring Services Unit (NFER)

Mrs B A Bloomfield (Head of Unit)
Mrs A Baker
Miss S Darby
Miss E Elliott
Mrs M Hall
Miss E Evans (Secretary)

¹ Mr B W Kay, HMI, was Chairman of the Group up to September 1977 and Mr D T E Marjoram, HMI, from September 1977 until July 1979.

A5.4 Monitoring group (NFER)

Dr C Burstall (Chairman)
 Mrs B A Bloomfield
 Mr P Dickson (from March 1981)
 Mr D D Foxman
 Dr T P Gorman
 Dr W Harlen (observer APU science team)
 Dr D Omrani (from March 1981)
 Dr E Price (from March 1981)
 Mr B Sexton
 Dr A S Willmott

¹ Professor B E Supple was
 Chairman of the Committee
 until March 1980.

A5.5 Members of the APU Consultative Committee

Professor J Dancy (Chairman) ¹	School of Education, University of Exeter
Miss J E L Baird	Joint General Secretary, AMMA
Mr P Boulter	Director of Education, Cumbria (ACC)
Mrs J Bushby	Councillor, Bromsgrove District Council
Mr P J Casey (to March 1982)	Deputy Director (Education and Training) CBI
Mr R G Cave	Formerly Senior Education Officer, Cambridge- shire
Mr L Cooper	Deputy Headmaster, Sherburn High School (NAS/UWT)
Mr H Dowson	Deputy Headmaster, Earl Marshal School, Sheffield, (NUT)
Professor S J Eggleston	Department of Education, University of Keele
Mr P J P Eley (to March 1982)	National Confederation of Parent-Teacher Associations
Mr A Evans	NUT
Mr D Fisher	County Education Officer, Hertfordshire (ACC)
Mr G S Foster	Headmaster, The Towers School, Ashford (NUT)
Mr G Hainsworth	Director of Education, Gateshead (AMA)
Mr K S Hopkins	Deputy Director of Education, Mid-Glamorgan (WJEC)
Councillor P Horton	Sheffield Metropolitan District Council (AMA)
Mr C Humphrey	Director of Education, Solihull (AMA)
Dr Kathleen Jones	Parent and doctor, Sheffield
Mr T M Jones	Headmaster, Werneth Junior School, Oldham (NUT)
Mr J A Lawton	Kent County Council (ACC)
Mr G M Lee	Doncaster Metropolitan Institute of Higher Education (NATFHE)
Mr S Maclure (to March 1982)	Editor, Times Educational Supplement
Mrs R Mills	Consultant Economist
Mr M J Pipes	Headmaster, City of Portsmouth School for Boys (NAHT)
Dr W Roy	Headmaster, The Hewett School, Norwich (NUT)

Professor M D Shipman
Miss A C Shrubsole
Mr F A Smithies

Mr T P Snape

Professor J Wrigley
Mr A Yates

Department of Education, University of Warwick
Principal, Homerton College
Assistant General Secretary, (Education) NAS/
UWT
Headmaster, King Edward VI School, Totnes
(SHA)
School of Education, University of Reading
Director, National Foundation for Educational
Research

Appendix 6 Markers' panels (writing assessment)

Analytic markers panel

Mrs S Craddock	Mrs L McEwen
Mrs J Gorman	Mrs E Waters

1980 Impression markers panel

Mr R Addison	Ms L Hawkins
Ms P Allan	Mr D Hillier
Ms J Baker	Mr P Hughes
Ms S Barry	Ms R Johnson
Mr D Bennett	Mr P Lawrence
Mr D Boyce	Ms A Maddern
Mr D Bryan	Ms M McDonald
Ms J Cary	Mrs L McEwen
Ms J Cooper	Ms J Morris
Mrs S Craddock	Mr E Moss
Ms S Dunkley	Mr C Odell
Mr D Drew	Mr J O'Sullivan
Mrs S Gibson	Mr B Rosser
Mrs J Gorman	Ms A Simpson
Ms J Gubb	Ms B Stone
Mrs B Grandison	Ms A Tate
Ms M Hackney	Mr L Tombs
Mr I Harman	Ms R Voxhall
Ms S Harris	Mrs E Waters
Mr A Haynes	Mr J White

Appendix 7 Teacher liaison groups

We would like to acknowledge the valuable assistance given to the monitoring team by members of the following liaison groups. Teachers in each of these groups had regular discussion meetings with members of the team over periods of six to nine months.

Avon (work sampling feasibility study – secondary level)

Convened by Mr I G Ball, Senior Adviser for English and Drama

Ms J Barrett

Mr B Jones

Mr D Kennerley

Ms M Millican

Mr N Parsons

Mr D Roberts

Buckinghamshire

Convened by Mr G Finlayson, Senior Adviser for English

Miss J Arnold

Mrs J Baker

Mrs V Clement

Mrs S Craddock

Mrs C Hales

Mr J Hicks

Mr J Holdcroft

Mrs A Richards

Mrs D Todd

Mr L Tombs

Mr J Wells

Mrs S Wellstead

Dolgellau

Convened by Mr I Boyer, Senior Adviser

Mrs M Allen

Mr J Blake

Miss H I Davies

Mr D H Ellis

Mr R Gapper

Miss G Hughes

Mr A Jones

Mr D T Jones

Mr E J Puw

Inner London Education Authority

Convened by Mr G M Thornton, District Inspector for English

Mr R Bevan

Miss G Blyth

Mr L S Chaplin

Miss M C L Davies
Mr F Comber
Mr W J Connor
Ms G Evans
Ms M Griffin
Mr R B Grimmett
Ms L Kelleher
Mr C King
Mr N Power

Sheffield

Convened by Mr M Binks, General Adviser
Mr A Barclay
Mrs L Field
Ms A Guest
Mr G Hall
Mr P Harris
Mr M Ralph
Mr R Watkins
Mr M Weller

Cambridgeshire

Convened by Mr J J Pearce, Senior Area Adviser for English
Mr N A Bonnett
Mr N Brown
Mr G Budd
Mrs S Dixon
Mr J Drury
Mr J Ellis
Mr G Goodbourn
Mr J Hynes
Mr I Landeman
Mr J Roberts
Mr W A Turtill
Mr J C Wilkinson

Cleveland (work sampling feasibility study — primary level)

Convened by Mr G Hodgeon, Adviser for English
Mrs J Cornacz
Mr C Cracknell
Mr M Huggins
Mrs A Johnson
Mrs A Leonard
Mr C Lumsden
Mr J Phipps
Mr K Prest
Mrs J Prondler

Cheshire

Convened by Mr Michael Jones, English Adviser

Mr A M Bennett

Mr J Caswell

Mrs J Cartmell

Mr A P Dent

Miss B V Dutton

Mr B C Fowler

Mrs G Fox

Miss M Griffiths

Mrs M A Grice

Mrs J Hughes

Mrs S Jardine

Mr W P Lockwood

Mrs M O'Toole

Miss L Olsen

Mrs P Parfitt

Mrs L Robinson

Mrs V Snelson

Mrs B Stanway

Miss L Souter

Mrs D Sutton

Mrs F M Watt

Mr R D Winder

Appendix 8 Note on the APU

The Assessment of Performance Unit (APU) was set up in 1975 within the Department of Education and Science. It aims to provide information about general levels of performance of children and young people at school and how these change over the years.

The terms of reference of the APU are:

‘to promote the development of methods of assessing and monitoring the achievement of children at school, and to seek to identify the incidence of under-achievement’.

Associated with these terms of reference are the following tasks:

1. To identify and appraise existing instruments and methods of assessment which may be relevant for these purposes.
2. To sponsor the creation of new instruments and techniques for assessment having due regard to statistical and sampling methods.
3. To promote the conduct of assessment in co-operation with local education authorities and teachers.
4. To identify significant differences of achievement related to the circumstances in which children learn, including the incidence of under-achievement, and to make the findings available to those concerned with resource allocation within government departments, local education authorities and schools.

The APU monitoring programme has been concerned to reflect the breadth of the curriculum in schools and to display the wide range of pupil performance. The assessment model adopted by the APU is based on a number of curricular areas. At the present time, monitoring is proceeding in mathematics, language and science, and the first survey of children's performance in their first foreign modern language will take place in 1983. The assessment of pupils' abilities in the field of design and technology is under consideration, but there is no commitment to monitoring in this area.

The assessment procedures in language are developed by the Language Monitoring Team at the National Foundation for Educational Research. The work is steered by a group consisting of teachers, advisers, teacher trainers, educational researchers and HMI. The work of all groups and the progress of the monitoring surveys is supervised by a small management team, which includes the administrative and professional heads of the Unit together with the chairman of each group. More generally, the APU is advised by a Consultative Committee, which is broadly representative of education, industry, commerce and parental concerns.

In producing national pictures of aspects of pupil performance, the Unit does not report on the performance of individual pupils, schools or local education authorities.

Survey results are published regularly, in the form of reports, by Her Majesty's Stationery Office. This is the second report to be published on the language performance of 15 years old. The report of the first secondary language survey was published in March 1982. Two reports on the language performance of 11 year olds have been published.

Further information about the work of the APU is available from the Department of Education and Science, Information Division, Room 211, Elizabeth House, York Road, London SE1 7PH.